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LEON CARNOVSKY
(1903–1975)

Sad to write and sad for us to comprehend, this is the last time that the name of Leon Carnovsky will appear as a member of the editorial board of the *Library Quarterly.* He died after a long, crippling, and irreversible illness in Oakland, California, on December 6, 1975. He had moved from Chicago to Oakland in 1972 after he became Professor Emeritus. During his retirement from professorial duties, however, he continued as an active member of the editorial board. In spite of his physical infirmities, he remained mentally alert, characteristically cheerful and judiciously considerate of all manuscripts that came his way, rendering reports that were balanced, pithy, and precise.

Leon Carnovsky's contributions to the *Library Quarterly* spanned the entire range of volumes published to date. His first article, "Suggestions Regarding an Evaluation of Methods in Current Adult Education Practices," appeared in volume 1, October 1931, pages 377–93, while he was still a student in the Graduate Library School. He joined the faculty of the school in 1932 after he finished his Ph.D. degree. Appointed to the editorial board as associate editor in 1936, he assumed the position of managing editor in 1943. From 1943 until July 1961 he conducted the affairs of the journal. From 1961 until his death he was an active and heavily relied on member of the editorial board.

His years as managing editor brought distinction to him and to the journal. He had an international reputation as a scholar, contacts with leading figures in librarianship both at home and abroad, and a personal manner, reflecting his open set of mind, that charmed all who met him. He combined these assets with a flair for discerning important issues and a sense of clear expository style to recruit and discover manuscripts of communicable importance.

His devotion to the entire editorial task was exemplary. He treated all manuscripts with consideration. A stylist himself, he did not tamper with the style of contributors except to demand clarity. He devoted the same attention to all phases of the journal's content—to the book reviews and minor contri-

butions as well as to major articles. His proofreading was as perfect as the human eye can achieve. Finally, he had a loving respect for the subscription list.

In all this, it must be remembered that editing was only a part-time activity for him. He was involved in writing and research, conducting library surveys, serving on boards and committees, and teaching. In the October 1968 issue of the *Library Quarterly*, published in his honor on his sixty-fifth birthday, a former student paid this tribute to Leon Carnovsky's teaching:

> Those of us who have had the good fortune to have been numbered among Leon's students, colleagues, and friends will always remember his expository skill as a lecturer, his ability to make the most jejune subject interesting, even exciting, his willingness to help a limping student or a halting friend. There is probably no way of knowing how many Master's theses or doctoral dissertations have acquired luster and substance because of his quiet editorial suggestions and his instinctive feel for language, style, and structure. [Vol. 38, p 428]

His writings were far ranging, numerous, and distinguished. The *Festschrift* cited above included a bibliography of more than ten double-column pages listing his contributions to library literature from 1931 to 1967. Others followed thereafter. He dealt with complex issues in structurally tight discourse. So quiet and sane a voice must linger long after the name vanishes from the masthead.

Howard W. Winger, *Graduate Library School, University of Chicago*

THE EMERGENCE OF THE *ENGLISH HISTORICAL REVIEW*

Margaret F. Stieg

In January 1886 the first number of the *English Historical Review* was published. It was the product of a convergence of pressures: the development of historical studies, the growth of a group of professional historians, the inadequacy of existing periodicals, and the example set by similar German and French periodicals. During its early years it encountered serious financial problems, but survived, the first professional historical journal in the English language.

Emergence of the *Review*

On July 8, 1885 James Bryce wrote to Lord Acton: "It is proposed to hold a small gathering of friends of the proposed Historical Review to talk over the plan and the ways and means thereto, at 35 Bryanston Square[1] next Wednesday at 7:45. Will you come and dine with me then? Creighton, York Powell, and four or five others will I hope appear: and I greatly hope you may be able."[2] The following January the first number of the *English Historical Review* appeared. The expeditiousness with which this was accomplished suggests that there is indeed a tide in the affairs of men.

The *English Historical Review* did not spring full grown from the head of James Bryce in 1885; it was the culmination of years of discussion and preparation. There had been at least one really serious earlier effort. Early in 1867 J. R. Green wrote to Edward Freeman, "Much of our chat turned on a scheme Hunt and I thought we had hit out together but which (it seems) Bryce had anticipated—the starting of a purely Historical Review" [2, p. 173]. Bryce's interest added strength to the scheme; as Green put it to Freeman two months later, "if he doesn't push it himself, I don't know any other man to do it. He *could* do it because he has a name" [2, p. 184].

1. Bryce's home.
2. Bryce to Acton, July 8, 1885 [1].

[Library Quarterly, vol. 46, no. 2, pp. 119–36]

The proposed review aborted. The historians could neither agree among themselves nor with the prospective publisher, Macmillan, on its nature and objectives. To what extent was it to be for the newly emerging group of professional historians, and to what extent must it try to appeal to the "general reader" upon whom its commercial success and survival might depend? When he discussed the possibility of the review aiming for commercial success, Green gave clear warning of the dangers: "Its almost inevitable tendency would be as the desire for 'success' pressed on editor and publisher to become more and more popular, and less and less scientific in tone. And this would simply bring the *Review* to the level of those Quarterlies which at present exist" [2, p. 435]. Yet Green, in contrast to Bryce and A. W. Ward who wanted "just what Germany and now France possesses, a purely scientific organ of historical criticism and means of information as to the progress of historical study at home and abroad" [2, p. 433], was also the warmest advocate of a review which would have general appeal. "A Historical Review—properly edited—ought be at once a representative of historical investigation, and at the same time have a current and general value for the world without. The political, the ecclesiastical, the literary events of the day have almost always an historical side and form in themselves admirable historical topics. Such topics, well dealt with by competent scholars from a definite historical stand point would have at once a scientific and a general value" [3]. Green continued to refine his ideas and by the time discussions ended six years later had proposed that careful and philosophical biographies of contemporary worthies and a quarterly summary of European events be added [2, p. 434]. Related to this fundamental issue of scholarly versus popular were other questions, such as how often was the review to appear? Green favored a shilling monthly, most compatible with wide popular appeal, other historians a quarterly, Macmillan an annual volume.

Green earned himself the epithet, "φῖλό δημος" (friend of the people) from Freeman and seems to have stood more or less alone among scholars in his willingness to compromise the scientific objectives of the review. Freeman was undoubtedly speaking for most of them when he said of Green's proposed shilling monthly, "I don't take to that at all. I [don't] see how there could be room in it for well considered articles of any length, such, I mean, as I have been in the habit of writing for Edinburgh, National, and North British" [4].

A letter of Green to Macmillan in 1876 terminated the discussions. Green announced that he had given the proposed review as much consideration as he could and must now turn his attention to other matters. Personal circumstances prevented him from accepting the editorship, and with so few historians to choose from, there was simply no one of the proper outlook, eminence, and industry to substitute for him. Green's health was poor; he was tubercular and prone to serious illnesses. A breakdown in 1869 had forced him to give up active parish work and to curtail his activities; he could not manage both to do his own writing and to edit a review. He was also forthright in

acknowledging his professional limitations. "It is better to say plainly that as things stand now I do not possess that confidence of historic scholars which the editor of such an organ *must* possess. I should be looked upon then by the bulk of them as a person imposed on the review by the unhappy necessity of securing a publisher and a popular circulation, and as the representative not of the scientific but of the non-scientific element in it" [2, p. 436]. Green was best known for *A Short History of the English People,* a work which, although based on sound scholarship, was most remarkable for its outstanding popularity. A further disadvantage was his lack of an affiliation with Oxford, the leader in providing formal training in history.

The Founders

These two attempts to found a review, one successful, the other a failure, were the work of the same group, if not the same individuals. Green was the central figure in the first attempt, Bryce, Creighton, and Acton the leaders in the second. Freeman was a benevolent party to both.[3] The peripheral, supporting characters were William Hunt in the first effort, and in the second Acton's fellow diners: Dean Church, A. W. Ward, and York Powell. They were all members of a distinguishable group, what Gladstone at one point identified as the "New Historical School." They were characterized by a common method and an emphasis upon sources.

Bryce (1838–1922) at the time he gave his dinner party was Regius Professor of Civil Law at Oxford and a Member of the House of Commons. A follower of Gladstone, he had a considerable reputation as a speaker on the Eastern Question. His background was Scotch-Irish. Born in Belfast into a family of some accomplishment,[4] Bryce was educated at his father's school in Glasgow, his uncle's school in Belfast, and the University of Glasgow, before being elected to a scholarship at Trinity College, Oxford. At Oxford he achieved an outstanding record of honors and prizes, as well as a victory for liberalism by successfully refusing to sign the Thirty-nine Articles, an admission requirement. He entered Lincoln's Inn in 1862 and in 1863 read law in Heidelberg. Before being appointed Regius Professor he had been a lecturer and then a professor at Owens College, Manchester.

3. These two efforts are less discontinuous than they seem; the idea never really died. Green's final letter to Macmillan was written in 1876 after at least nine years' discussion, in 1883 a review was again being seriously considered Bryce wrote to Freeman: "The idea of a Historical Review is again coming on the carpet, & is to be proposed to the Cambridge University Prep [Press] in October. Ward and I hope to take part in it. May we consider you as a contributor and use your name as approving?" [5]
4. Both his father, a schoolmaster and geologist, and his paternal grandfather, a divine, are listed independently in the *Dictionary of National Biography*

Acton was a figure of European distinction and his presence was a considerable asset to the new review. In Victorian England, John Emerich Edward Dalberg Acton, Lord Acton (1832–1901) uniquely combined social, political, and intellectual eminence. Of an ancient Catholic family which had received its title from Charles I, he was the eighth baronet and the first Baron Acton of Aldenham. He was the stepson of the Liberal statesman, the second Earl Granville, who was so often Foreign Secretary, never quite Prime Minister. Acton had been educated primarily in Munich under Karl Döllinger, the eminent German scholar and later opponent of papal supremacy. He had served a term in the House of Commons and after his elevation to the peerage in 1869 by Gladstone sat in the House of Lords. Although he was no politician, his period in the House of Commons had served to introduce him to Gladstone and by 1885 there had developed a very close relationship between the two men. Gladstone had pretensions to scholarship, chiefly as a biblical critic, and submitted all his writings to Acton's criticism before publication.

Mandell Creighton (1843–1901) came of humble but successful origins. Born in Carlisle, his grandfather, a joiner, had come there from the Scottish Lowlands. His father had a large furnishing and decorating business that was known all over the north of England, served long years on the city council of Carlisle, and eventually became mayor. His mother was the daughter of a yeoman farmer, but he had an uncle and brother who were Cambridge fellows. Creighton had had an academically undistinguished career at Oxford, preferring rowing and fellowship to study, but in 1867 he became a tutor there. He was an organizer. At Oxford he was largely responsible for the establishment of intercollegiate lectures in history which contributed to the development of history as an academic discipline. When he left Oxford for the parish of Embleton in Northumberland to gain experience of parochial work and to obtain leisure and quiet to carry out his historical studies, he was active in the organization of the diocese of Newcastle. In 1884 Creighton became Dixie Professor of Ecclesiastical History at Cambridge and in the following year a canon at Worcester. His most important work, *The History of the Papacy,* had begun to appear in 1882. Creighton, too, was a follower of Gladstone, although after the Home Rule crisis he was a supporter of the Unionist side.

John Richard Green (1837–83) was a native of Oxford; his father, the son of a tailor, made silk gowns for the Fellows. He had died young, but to his son's profound gratitude had left money for his education. Green had been elected to Jesus College in 1854, but he and Oxford seem to have made little impression on each other. After taking his degree he was ordained and served as curate in several East End parishes in London, then as the incumbent of St. Philip's, Stepney. After the breakdown in his health in 1869 friends secured for him the appointment as librarian of Lambeth, a sinecure which enabled him to write when he had recovered sufficiently.

Edward Freeman (1823–92) does not really qualify as an active partici-

pant in the founding of the historical review, having confined his role to encouragement, but he was so important in English historical studies that from him mere benevolence was a major contribution. Older than most of the rest, he had served as mentor to several of them, although before being appointed Regius Professor of Modern History at Oxford in 1884, his institutional connection with Oxford had been confined to occasional examining in the School of Law and Modern History. Freeman had been orphaned early and had been raised by his grandmother. While a student at Oxford he had studied architecture; he had moved into history via architecture and his first books were on architectural subjects. He had been fortunate enough to inherit a private income and in the best English tradition had established himself as a country gentleman at Somerleaze near Wells in Somerset. There he was able to devote himself full-time to writing and scholarship. Various unsuccessful candidacies—in 1861 the Camden Professorship of Ancient History, in 1862 the Chichele Professorship of Modern History, and in 1868 the parliamentary seat for Mid-Somerset—had been blows to his pride rather than more substantial injuries.

The biographical facts of the remaining men do not materially change the picture. Acton is an exception to every rule, but the rest are remarkably homogeneous. All except Ward had been educated at Oxford; most had been active there in the establishment of the new school of history. With the exception of Freeman, they were either professional academics or clergymen in an era when cleric was often synonymous with scholar. Creighton moved back and forth between the two worlds with ease. Except for Green, they came of solid, successful, upper-middle-class families. A high proportion had received some part of their education abroad. All were Liberals, and several of them played an active role in politics. The variety, in fact, was in their scholarship. Not all of them were engaged in what is now considered history. The boundaries of the discipline were considerably more elastic then than now and the founders of the *English Historical Review* included legal and literary scholars as well as historians.

From the participants one important historian is conspicuously absent, William Stubbs (1825–1901), Regius Professor of Modern History at Oxford from 1866 to 1884. Stubbs shared much with those who had been active; he had been the first English historian to immerse himself in source materials and actually to use the Public Record Office. In 1867 Bryce was even thinking of him as editor for the review [2, p. 173]. When thanking Lord Acton for his assistance, Creighton described Stubbs's disinterest: "Stubbs does not surprise me: he never was zealous in helping others; he never cared about organization, he never tried to give a stimulus to anything, he always worked by himself and to himself, his pattern was the cobbler who stuck to his last."[5]

5. Creighton to Acton, September 14, 1885 [1].

Because of his prominence and many similarities as an historian to the founders of the *Review,* Stubbs's absence is curious although it is probably not very significant. Creighton's reasons may be the right ones, or Stubbs may just have been too busy. He had recently been appointed bishop of Chester and was an indefatigable editor of the Rolls Series. That may have been coupled to a disinclination to assist Creighton; for when Creighton had organized the intercollegiate lectures, Stubbs had been left with little contribution to make to Oxford save research, a situation with which the Regius Professor was known to be unhappy.

Institutionalization of Historical Studies in England

An important factor in creating the demand for a new type of review was the beginning and development of historical studies. In England the growth of historical studies, once begun, was rapid; and the center of activity was Oxford. The connection of all the founders of the review except Ward with Oxford is anything but coincidental.

Before the mid-nineteenth century, history as a subject was almost completely excluded from the schools. A few isolated individuals at the end of the eighteenth century can be singled out—Priestley at Warrington Academy, James at Rugby, and Dr. Samuel Butler at Shrewsbury—but there was no systematic study. History was present in the curriculum only as a possible topic for a written theme. Nor were the universities any better. In 1724 George I had founded Regius Professorships of Modern History, but the professors seem to have been chosen without regard for their subject. The poet Thomas Gray, for example, was one of the Regius Professors of Modern History at Cambridge.

The forty years between 1840 and 1880 completely transformed the situation. In 1841 Thomas Arnold was appointed Regius Professor of Modern History at Oxford by Lord Melbourne, who wanted to make him a professor but could not quite decide of what. Even though Arnold died after only one year, he succeeded in arousing an interest in the subject by well-prepared lectures on, *mirabile dictu,* historical topics. In 1850 the School of Law and Modern History was founded as an examination school, with the idea of providing for those " 'who, not being candidates for distinctions which require greater powers of intellect as well as application, might nevertheless be most usefully employed on subjects within their reach, and yet in every respect well calculated to instruct and improve their minds' " [6, p. 7]. In 1871 Modern History was separated from Law and became a school for a degree in its own right. Organization was left to chance; there was no Board of Studies until 1872, nor a Board of Faculty until 1882. Most important, the Regius Professor was not given any control over examinations or over teaching; these were left to the colleges. Had he been given this control, Oxford might well

have emerged with a system similar to the German professorial system. Instead, the preparation of undergraduates was left to the tutors who organized the intercollegiate system of lectures, a separate and rival system to the professors.

History at Oxford was further strengthened by the foundation of several new professorships in those years: in 1842 a Regius Professor of Ecclesiastical History, in 1854 the Chichele Professor of International Law, and in 1862 the Chichele Professor of Modern History. It was A. P. Stanley, the Regius Professor of Ecclesiastical History, who kindled Green's interest in history, although Green was not in the School of Law and Modern History.

At Cambridge development of historical studies was neither as rapid nor as considerable as at Oxford. In 1884 Cambridge could muster only one professor and five lecturers in history to compare with Oxford's two professors, one reader, and thirteen lecturers. Tripos on the Oxford pattern were instituted at Cambridge for jurisprudence and modern history in 1870, and a separate tripos for universal history in 1875.

The provision of arrangements for formal study in a discipline is a critical step in its development. As early as 1884 the Oxford School of Law and Modern History had contributed Bryce, Creighton, and Powell to help found an historical review. By European standards, however, Oxford was not very impressive. The existence of schools and tripos in a subject inevitably increased the number of those interested in it, but the wide range of topics covered in the examinations encouraged superficiality. There still existed no training in the use of and importance of source materials, no training in method, and none in individual research, omissions which neglected the heart of the discipline. Although English historians recognized the importance of what was called *Quellenstudien,* and utilization of original sources was a distinguishing characteristic of the new historians, they remained self-taught in the use of these sources until the end of the century [6, 7, 8].

Even if the new system was still embryonic in 1885, the formalization and growth of historical studies was extremely important. As a result, the numbers of those with a serious interest in history increased. There thus existed an audience for the kind of article the professional historians wished to write but could not write for the periodicals which then existed. A recognizable program of studies also increased the professional self-consciousness of the historians. The number of country clergy, like William Hunt, who contributed to development at Oxford is astonishing. Increased contact between historians could not help but heighten awareness of interests in common.

Historical Publishing before the *Review*

Just as former educational facilities had been inadequate, so were existing forms of periodical publication no longer adequate. Until 1886 historical

material appeared principally in the publications of societies or in the great national quarterlies. From the point of view of the editors of these publications, the articles written by historians to meet the new standards of scholarship were inappropriate or of no interest. From the historians' point of view none of these publications could satisfy their needs: besides being forced to compromise their standards in order to be published, historians could not keep themselves systematically informed of the work of other historians and the activities of relevant groups through any of these forms of publication.

The chief limitations of the society publications were an unmistakable air of frivolity and an incurable amateurism. A society, whether a literary society or a local archaeological and natural history society, might state such grandiloquent aims as the advancement of knowledge or the improvement of architectural taste, but the members' pleasure was an unstated prerequisite. They were social organizations first, intellectual second. Considerable space in their periodicals, representing a corresponding amount of time in the life of the society, was given to activities such as the visit of the Somersetshire Archaeological and Natural History Society (SANHS) to Failand House and the musical program to which the members were treated [9, pp. 44–45]. The presence of a professional historian in such a society, such as that of Freeman in the SANHS, was sheer accident. These societies were dominated by the local gentry, with strong contingents of the clergy, and had long lists of honorary (and nonparticipating) members. What must have been the all-too-frequent tone of the meetings is depicted by Green: "Facetiae seem to be the order of the day—in deference to the ladies, I suppose. . . . Sedgwick was facetious, Phillips facetious, Crawford facetious, Murchison facetious" [2, pp. 41–42].

These societies produced generally unimpressive publications. Articles with rare exceptions reflected the most narrow-minded kind of antiquarianism, or consisted of local history devoid of context, riddled with misinterpretations. Their members had a very limited historical perspective and were conspicuously uninterested in most periods except the Middle Ages. In addition, the members tended to be extremely personal in their approach to history. The Yorkshire Parish Register Society argued that its parish registers could not fail to be interesting to a large number of Yorkshiremen "because many of our County Families sprang from amongst its citizens" [10, p. v].

With all these weaknesses and inadequacies, the societies did make a contribution of significant value to the development of history and historical publishing. They fulfilled their objective of collecting and preserving antiquarian materials. They provided a means of communication, an opportunity for, in the words of the Manchester society, thought to beget thought. Green, for example, met both Freeman and Stubbs through the SANHS. The societies, then, stimulated interest in history on a certain level and gave it some sort of direction. And, most important, by providing space for historical topics in their publications, they encouraged historical writing and research.

The second type of periodical publication of consequence to historical studies and publishing was the great intellectual quarterly. Periodicals such as the *Edinburgh Review* and the *Quarterly Review* influenced opinion in Parliament, and writing for them made literary reputations. They measured their circulation in the thousands, in contrast to the few hundreds of the society publications.[6] Where the society publications were fundamentally local, in subject, in appeal, and in readership, the reviews were truly national publications. Moreover, the contrast between amateur and professional product is unmistakable. The society publications almost always resulted from the efforts of well-meaning amateurs where the reviews were produced by professional journalists. The difference shows in many ways: in the style of writing, the physical appearance, the choice of topics, and, most of all, in the contributors. Those who wrote articles on history for the general periodicals were either professional journalists or professional historians. Professional historians preferred to write for general periodicals rather than the publications of archaeological societies, since general periodicals would reach historians throughout the country. And, no minor consideration, their contributors were also invariably well paid [11, p. 10].

The content of the reviews dependend upon the editors' perceptions of the interests of their readers, and plainly the editors did not detect any burning interest in history on the part of the general public. Most articles were on current issues. Such history as did appear usually appeared in the form of a review article or as short reviews, a somewhat indirect presence. The most important English historical works were reviewed, however, and, in the *North British Review* and the *Westminster Review*, even the more important foreign historical works were noticed. In 1878, for example, Samuel Rawson Gardiner's latest works [12, 13], a volume in Lecky's *A History of England in the Eighteenth Century* [14], a revised edition of a work by Ranke [15], and one by the obscure German historian Franz Heyer [16] all appear. Even a highly specialized collection of the medieval records of Lübeck, edited by C. W. Pauli, is reviewed [17].

A letter of Freeman to Macmillan just after the first volume of his *History of the Norman Conquest* was published illustrates the professional historian's attitude and problems with the general reviews:

I appreciate the commercial value of the Athenaeum article, but it is grievous to ones feelings to be praised by Hepworth Dixon It was much more satisfactory when he pronounced Fed Gov. vol. I to "show no signs of independent research " The general line of the Athenaeum is to run down sound scholarship in any shape, but I have marked that there is always an exception in favour of Guest, so I suppose I come in under his week. As I take Hepworth Dixon to represent the lowest form of the "general reader", mixed up with a certain dose of affectation and small pedantry, if he finds me "readable," others of his sort may take to it also. [18]

6. The SANHS listed 247 member-subscribers in 1850.

Later, speaking of another publication, Freeman was to say, "Of all, only Johnny[7] and Boase in the Academy had a real right to write" [19].

In this group of general periodicals, the *North British Review* has some characteristics of special importance to the development of historical publishing. Until it changed owners in 1869 it had been a standard review, Liberal in its politics, emphasizing Scottish interests. Early in 1869 it was purchased by a group of Catholics led by Lord Acton, primarily to replace the *Rambler* which had expressed the Catholic viewpoint until it had ceased publication several years before. Acton also desired, however, to see an increased emphasis on history in its pages, a desire which resulted in the appearance of more good articles on history, beginning with Acton's own on the Massacre of St. Bartholomew [20]. An extensive review section was also added and the whole periodical went so far toward meeting professional historians' needs that J. R. Green felt it "certainly cut into our organizational plan" for the historical review then under discussion [2, p. 234]. But the new *North British Review* survived only briefly. The immediate cause of its demise was the breakdown in the editor's health, but had it aroused more support, surely that obstacle could have been surmounted [21]. Acton had, however, showed what could be done.

Where the defects of the local society publications were amateurism and provincialism, those of the reviews were commercialism and a politicized point of view. Neither was a truly satisfactory publisher of historical material, and publication in them brought little professional recognition. Before Freeman had achieved the dignity of Regius Professor and was still striving for acknowledgment, Bryce wrote to him: ". . .I desire to urge upon you not to write so much in magazines, but to reserve your strength for big works—and above all to lose no more time in falling to on Switz.[8] These magazine articles, however good, are quickly forgotten, while a book between boards remains" [22]. Yet Creighton, only twenty years later, could refer to an article by Paul Vinogradoff as potentially important.[9] That change in attitude was considerable and a consequence of the founding of the *English Historical Review*.

Bryce, Freeman, and Green were not the only scholars, or even historians, dissatisfied with the situation. In 1869 appeared the first volume of the *Transactions of the Royal Historical Society*, a publication designed to provide a more satisfactory alternative for historians than that offered by the general reviews or the local history societies. The Royal Historical Society was founded late in 1868, explicitly "to deal with a class of historical subjects which, while they do not fall under the cognizance of Archaeological Institutions, have not been

7. John Richard Green.
8. Freeman was contemplating a book on Switzerland.
9. Creighton to Acton, January 22, 1890 [1].

comprehended within the programme of other Associations" [23]. "Biographical and chronological investigations" were examples given of this class of historical subject. Publication was an integral part of the initial program of the Royal Historical Society because it was felt that the excluded individuals did not possess "facilities such as to render their researches available" [23].

The aims of the new society were more impressive than its accomplishments. The most telling evidence of its inadequacy and a source of weakness in itself was the total absence of the Bryce-Green-Freeman-Stubbs group of historians. The membership lists of the Royal Historical Society instead abound with amateurs, clergymen, public officials like His Excellency General John Meredith Read, L.L.B., M.R.I.A., United States Minister, Athens, and nobility like the Most Honourable the Marquess of Lorne. In membership it was a national version of the local archaeological society. The Royal Historical Society was, in fact, precisely the kind of organization Bryce feared when he wrote to Freeman: "Has it ever struck you that there ought to be in England some sort of centre of historical study—something which might give fellow labourers an opportunity of knowing each other and how each other's work speeds? Would it be possible to organize an historical society. There would of course be the danger of swells and toadies wanting to make it "Royal," and dragging in the Prince of Wales to preside or patronize. But a very modest beginning might perhaps avoid this" [24].

The *Transactions of the Royal Historical Society,* not surprisingly, failed to fulfill the needs of the professional historians. It did publish exclusively historical articles, but it made no attempt to serve as an organ of communication for the profession. It neither reviewed historical works nor listed them in any way. It appeared, moreover, only once a year, eliminating all pretensions to being current. And, in its early years, it appears to have been dominated by a very small coterie led by the eminently obscure the Reverent Charles Rogers, who produced at least one article for each early volume.

The European Example

To fill the still existing void, therefore, Bryce and his friends founded the *English Historical Review* in 1885. It was, quite clearly, modeled upon the *Historische Zeitschrift* (begun in 1859 by Heinrich von Sybel, a pupil of Ranke), and, to a lesser extent, upon the French *Revue historique,* founded in 1876 and representing only a slight modification of the German original. The prototypal *Historische Zeitschrift* had scholarly articles; lengthy reviews of books, which in the first number of the 1880 volume included German, French, Italian, and Polish works; and reports on historical meetings, for example that of the Historische Kommission of the Bavarian Akademie der Wissenschaften. To that model the *Revue historique* had added a list of the current contents of periodicals.

The *Historische Zeitschrift* had rapidly achieved an enormous reputation, and it is hard to overestimate its importance in the historical world. In 1865 Freeman wrote with concern to his publisher that the *Historische Zeitschrift*, which he described as "the great historical periodical on the continent," seemed to have overlooked his *Federal Government* [25]. Three years later he reported with satisfaction about a later work of his, writing a separate note to Macmillan just to do it, which Stubbs had told him had received a notice in the latest number of the *Historische Zeitschrift* [26].

There is a strong suspicion that, besides serving as models, the German and French periodicals served as a spur and goad to national pride. Bryce opened the preface to the first number of the *English Historical Review* with the statement, "It has long been a matter of observation and regret that in England, alone among the great countries of Europe, there does not exist any periodical organ dedicated to the study of history" [27, p. 1]. Certainly the *English Historical Review* was continually measured against the historical periodicals of other European countries after it began publication. After the first number Mandell Creighton wrote to Acton, "Looking at it impartially, I think the Review is better planned than Sybel, not so well as the R. Historique, but it promises to be more varied and of more general interest than either. At the same time its workmanship will not on the whole be so thorough."[10] Two years later Creighton was pleased to note: "I am glad to see that our range of subjects keeps on increasing: we are less purely national than any of the Continental Reviews. I think we escape the charge of insularity."[11]

The Early Years of the *Review*

In addition to articles, the first volume of the *English Historical Review* contained the following sections: "Notes and Documents," "List of Historical Books Recently Published," "Contents of Periodical Publications," and "Reviews of Books." The "Notes and Documents" included letters, such as a 4-page dissent by Paul Vinogradoff [28] from Elton's definition of the term *molland* [29], communications, like that noting the formation of the Huguenot Society of London, and original manuscripts. The documents printed in the first volume include, among others, the William Squire–Thomas Carlyle correspondence [30], and some letters relating to the Hanoverian Succession [31].

The "List of Books" provided only bibliographic citations, but the reviews in the review section were long and detailed, and they were signed. The "Contents of Periodical Publications," very comprehensive in its coverage, was a standard current contents list. France, with twenty periodicals, had

10. Creighton to Acton, January 26, 1886 [1].
11. Creighton to Acton, July 24, 1888 [1].

more titles included than any other country. The list of periodicals from the United States is considerably shorter, reflecting, among other things, a less developed historical scholarship. The *Magazine of American History,* the *New England Historical and Genealogical Register,* the *Johns Hopkins University Studies in Historical and Political Science,* and *Baum's Church Review* are the only American periodicals so dignified. Even Russia was represented—by the *Starina* (the Antiquary). Historical articles which appeared in the general British reviews were also listed in this section.

The articles in the first volume of the *English Historical Review* are transitional. Most of the contributors had formerly written for the reviews—rarely for the archaeological societies—and their articles in the *English Historical Review* show evidence of this experience. There were some differences, although the extent of the change should not be overestimated. Where the articles in the reviews had tended to be essays, like Seeley's article urging that English international policy be studied with more knowledge of continental history [32], the *English Historical Review* articles tended to be analytical. They were more scholarly, paid more attention to source materials, and footnotes were the rule rather than the exception. The topics were more narrowly limited; instead of "Roman Imperialism" or "The Making of Germany," it was "The Tyrants of Britain, Gaul, and Spain, A.D. 406–411" and "The Death of Amy Robsart."

The transition was not to be complete until the separation of scholarly and unscholarly articles was accomplished, but even in the first volume appreciation of the distinctive nature of the new periodical is evident. For example, in the first volume Osmund Airy reviewed volume 2 of a catalog of manuscripts in the British Museum. He had reviewed volume 1 of the same work for the *Quarterly Review* in April 1884—a typical review in which he did little more than chronicle the events recorded in the manuscripts [33]. In his notice in the *English Historical Review,* he continued the narrative account, but in addition he provided clarification in footnotes, explained minor points, and quoted extensively from sources [34]. Plainly, the *English Historical Review* had been recognized as a more suitable place for certain types of material.

An astonishingly short interval of time elapsed between the organization and planning of the *English Historical Review* and the first number rolling off the presses; its beginning seems, in fact, to have been relatively painless. Within a year, however, it was clear that it had a financial problem which had to be solved if it was to survive. Bryce wrote to Acton in December 1886: "We are disheartened with the scanty sale of the Historical Review. It rather declines than grows."[12] Creighton was writing to Acton at the same time: "You have deserted the Historical Review lately. Has it incurred your displeasure by its frivolity? It rather needs your assistance, as its finances do not

12. Bryce to Acton, December 25, 1886 [1].

prosper. Longman was doubtful about going on a second year but we dragged him to that point. Our circulation tends to settle down at about 600 copies—which is scarcely enough, though I was never sufficiently sanguine to expect more than 1000."[13] Its prospects had doubtless been overestimated: 2,000 copies of the first number were printed, declining with the second issue to 1,500, the third to 1,250, the fourth to 1,000, the eighth to 900, the tenth to 800, before stabilizing at 750 with the eleventh. Compared to these numbers, the runs of the *Edinburgh Review,* one of the most important of the quarterlies which Longmans also published, averaged around 3,000 at this time [35, pp. 27, 56, 85, 107, 137, 150, 187, 198, 225, 253, 271, 297].

Using Creighton's circulation figure of 600, income must usually have failed to balance costs. Had Longmans received the full 5 shillings per copy face value, they would have received about £150 per number, but many of the copies were retailed by news dealers who bought them for 3 or 4 shillings. Only small advertising revenues could be added to the sales receipts. These figures confirm what had been Green's earlier argument: there simply were not enough historians to make a scholarly review run as a commercially feasible venture on the same principles as the general reviews.

To enable the review to continue publication, several schemes were adopted, strict economizing being the most important. Cutting the number printed from 1,500 to 750 reduced costs from £169-6-10 to £130-15-1 [35, pp. 56, 271]. Creighton agreed to keep the printers' bill as low as possible, giving up much of his freedom to make corrections to the proofs.[14] A payment of £50 to the editor was reduced to £25 by January 1890. What this payment represented is unclear. According to Reginald Lane Poole, Creighton's assistant, both Creighton and his successor, Samuel Gardiner, received no recompense.[15] Most probably it covered the expenses of the editor and in the early days included payments to writers, although those had to be sacrificed to the need for economy. To the fixed nature of this payment can probably be attributed Creighton's uncertainty when he wrote to Poole, "Personally I think I am out of pocket by it" [36, p. 343].

If a major part of the effort to sustain the review was devoted to keeping costs down, on the other hand energy was given to increasing its circulation. Creighton made spasmodic attempts to appeal to the elusive "general reader." He persuaded Gladstone to do an article. Occasionally, he would allow the supposed tastes of the general reader to be determining: "The Paris arti-

13. Creighton to Acton, January 24, 1887 [1].

14. Creighton to Acton, October 23, 1890 [1].

15. Poole, who bore a considerable share of the burden, wrote to Acton after Gardiner's appointment, "It is very good of Gardiner to accept an honorary position which will give him a considerable amount of work and no pay at all" (Poole to Acton, Maundy Thursday, 1891 [1]). Poole certainly was in a position to know. Creighton had also stated in a letter to Gladstone that his post was "a purely honorary one" [36, p. 342].

cle comes to nothing save an attempt to illustrate social life. I put it in to please 'the general reader.' "[16] Creighton knew, however, that such concessions were and could only be superficial; to go very far in that direction would entirely change the character of the review and make it useless to its most important audience, the historians for whom it had been created.

Creighton also had nonfinancial problems. Some were minor, such as his dissatisfaction with his lack of control over the printer; others were more material. Although he had anticipated "a lack of new and attractive subjects,"[17] within nine months and two issues he was complaining, "Articles flow in and are offered, good, bad, and indifferent: the last class is the most numerous and perplexing."[18] His perplexity undoubtedly arose from the relatively slight changes which he could make to articles submitted. Principally, the restraint was enforced by custom, partially by Creighton's necessarily limited knowledge. His analysis of the second number is a catalog of things he had been unable to do.[19]

As editor Creighton was very much caught in the middle of any historian's war. He refused to commit an editorial policy to paper because "we have not sufficient agreement about the method and scope of history. Freeman and Seeley may appear side by side, but I could not draw up a detailed prospectus in which they could both agree" [36, p. 336]. He had, however, a conception of what he wanted the *Review* to be and as he acquired confidence shaped it more and more to his intention. He was pleased to be able to make the reviews a substantial part of the July 1889 issue, a thing he had often wished to do but had never before been able to do.[20]

Because he considered the July 1888 issue "the best balanced and most satisfactory for a general average of the numbers which had yet appeared,"[21] this issue may be taken as an exemplar. The issue contained five articles totaling 80 pages by F. W. Maitland, H. E. Malden, W. H. Hudson, T. W. Cameron, and J. Breck Perkins on what appear to be topics of relatively limited diversity: "The Suitors of the County Court," "The West-Saxon Conquest of Surrey," "Hrostvitha of Gandersheim," "The Early Life of Thomas Wolsey," and "The Great Condé." The articles were followed by a notes and documents section of 54 pages, including for example, a note on "Northmen in the Isle of Man" by the Icelandic philologist Gudbrand Vigfusson, and one on "Two Declarations against Garnet Relating to the Gunpowder Plot" by S. R. Gardiner. Next came 55 pages of long, signed, book reviews; and then a 9-page "List of Historical Books Recently Published," although only books in

16. Creighton to Acton, April 29, 1886 [1].
17. Creighton to Acton, July 17, 1885 [1]
18. Creighton to Acton, April 29, 1886 [1].
19. Creighton to Acton, April 29, 1886 [1].
20. Creighton to Acton, March 31, 1889 [1].
21. Creighton to Acton, July 24, 1888 [1].

western European languages were listed: even the section on Slavonian and Lithuanian history had no more esoteric a language than German. Creighton was understandably proud of this number, for he had more editorial responsibility than usual for it.[22]

Although Creighton was pleased with the July 1888 number, it corroborates one of his continual lamentations to Acton, his difficulty with foreign, and especially German, materials. He had trouble getting books; he suspected, probably with justification, that German publishers simply did not care whether their books were reviewed in the English periodical or not. And once he had them, he had trouble getting them reviewed; few scholars felt themselves competent, either with the language or the range of material covered by a German scholar. For foreign periodicals he was dependent upon the Bodleian's subscriptions (Poole, who taught and examined at Oxford, must have been responsible for this section) and the Bodleian received few foreign periodicals and most of those late. He could not obtain the cooperation of foreign scholars in preparing communications of the kind Samuel Gardiner did for the *Revue historique* because he could not pay them. And finally, one of the concessions he yielded to Longmans was to give English works precedence over foreign, because English publishers were the ones who would place advertisements.[23]

In his tenure as editor during the formative years of the *English Historical Review* Creighton gave it shape and direction. He had been an admirable choice as editor, bringing to it qualities of inestimable value, strength and independence. He was a scholar in his own right, who upheld the new methods and standards. He was of sufficient standing to reject a bad article written by a prestigious scholar. Bryce might consider that the review for which Creighton had been responsible lacked liveliness,[24] but his successor, Samuel R. Gardiner, was chosen because he could bring exactly the same qualities to the editorship as Creighton. Reginald Poole, who did most of the actual work for both Creighton and Gardiner, did not become editor until 1901.

Conclusion

The publication of the *English Historical Review* was an event of significance and impact. Its importance should not be measured by its circulation figures. The reviews and current contents section did, even if inadequately in Creighton's opinion, serve to keep informed the "scattered and isolated" stu-

22. Creighton to Acton, July 24, 1888 [1].
23. Creighton to Acton, September 14, 1885; January 15, 1886; December 13, 1888 [1], [36, p. 335].
24. Bryce to Acton, July 2, 1891 [1].

dents of history who would have had no other means of learning.[25] Because Creighton made a real effort to include articles by new men and men of varying views, it brought new scholars to the attention of older ones.[26] Historical studies acquired in the person of the editor a central coordinating agent which had been previously lacking. For instance, when planning the *Cambridge Modern History,* Acton consulted Creighton about who should write the various sections.[27] In larger terms, the *English Historical Review* raised historical standards; Creighton, for example, took pride in having improved the quality of the Rolls Series.[28] Moreover, the *Review* was something of an innovation in English periodical publishing: it was the first scholarly, specialized, professional review in an academic discipline.

In itself, the appearance of the *English Historical Review* is a statement that professional history had come into existence. There was a group of professional historians who wanted to be able to apply their own rules of scholarship, however irrelevant the general reader might find them. This group of professional historians had different needs from those of other groups, and they would only be satisfied by a different kind of publication, separate from existing publications which others controlled. The review stood as a symbol of the progress of historical studies as well as contributing to it. Its foundation was part of a world-wide trend, the widening cleavage between the specialist scholar and the general, educated reader.

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AVANT-GARDE MUSIC: SOME PUBLICATION PROBLEMS

Mary Wedgewood

Composers of avant-garde music encounter many problems getting their works published. Three reasons why such music is generally unattractive to publishers are identified: (1) it is extremely difficult for an editor to assess it on the basis of its artistic merit; (2) to prepare it for public dissemination may require editorial services or physical plant capabilities which are not readily available in most publishing houses; and (3) there is a very limited market for the finished product. Some ways in which publishers deal with problems presented by avant-garde music scores when they do undertake their publication are mentioned, including applications of photoduplication and computer technologies. Currently common alternatives to standard commercial publishing are discussed, including informal circulation of "unpublished" scores, dissemination in the form of periodical anthologies, and composer-initiated ventures such as composer-owned or directed firms and cooperatives.

Introduction

The number of music publishers is quite small in comparison to the number of book publishers. Among music publishers, a relatively small proportion deals with "serious," "classical," or "concert" music.[1] Publishers who handle this kind of music at all tend to concentrate on the music of the old masters (Bach, Beethoven, Brahms) for which there is a relatively steady demand, though one which is small when compared to that for popular music. The music of serious twentieth-century composers appearing on most publishers' lists is, for the most part, "conservative," "mainstream," and, from the publisher's point of view, not substantially unlike the established, readily marketable music of the past 250 years. Only a handful of publishers have

1. For the purposes of this article, I shall use descriptive terms as they are usually applied to music, with all the usual connotations. These terms are useful here to designate a type of music different from that usually referred to as popular (including jazz, country and western, folk, rock).

[Library Quarterly, vol. 46, no 2, pp 137–52]

anything at all to do with the highly innovative, untraditional music of avant-garde composers. Of these publishers, a number operate in quite unorthodox manners and have little in common with large, established music publishing firms.

The purpose of this article is to discuss aspects of the publication of the scores of avant-garde music.[2] Why are they generally unattractive to publishers? How do publishers cope with some of the manifold problems such scores present when they do undertake their publication? How have composers responded to the dearth of publishers for their artistic creations?[3]

Publishing Problems

It seems to me that there are three basic reasons why publishers are generally hesitant to deal with avant-garde music: (1) it is so unlike what has traditionally been known as music (in Western European high art) that it is extremely difficult for an editor to make valid assessments of its artistic merits; (2) to get it into a form suitable for public dissemination may require editorial services or physical plant capabilities which are not readily available in most publishing houses as they are currently organized; and (3) there is a very limited market for the finished product.

Score selection on the part of publishers who are willing to put out music which tends initially not to make money but which may eventually be considered "great"—though perhaps not before it has fallen into the public domain—is complicated by the very nature of avant-garde works submitted for consideration. It is difficult to make a definitive pronouncement about the long-range artistic significance of a work which may well be esthetically "ahead of its time," "experimental," or "breaking new ground," as the term avant-garde implies. For example, is John Cage's piece "4'33"" (which consists of four minutes and thirty-three seconds of silence, in three movements) a profound statement of universal esthetic principles or just a bad joke? A publisher willing to assume risks if he could be reasonably certain that a work would eventually attain broad recognition might simply give up because of inability to cope with questions such as this.

Moreover, a publisher may face other, related problems once he has decided to put out avant-garde works. For example, in the late 1960s, C. F. Peters, one of the largest publishers of serious new music in the United States, was "refused copyrights on a number of works so 'aleatory' that the Register of Copyrights found in them nothing to copyright; it was and is an interesting

2 I have excluded the recording industry from consideration in this article to as great an extent as possible, though it comprises a very large and important facet of the total music publishing scene

3. In this article, emphasis is placed on activity in the United States.

question both legally and musically" [1, p. 492]. Interesting as this question may be, it creates just one more problem for the publisher as businessman. Who is to decide what constitutes a work of art, and on what bases?

Having decided to publish a piece of music, the publisher must deal with it as a physical object, a tangible representation of the intangible work. The physical formats taken by avant-garde music scores are many, varied, unpredictable, and often very complex. A score may consist of a paper cylinder attached to a circular music stand with gears causing the whole thing to rotate (Charles Hamm's "Round"); a Möbius strip (Nicolas Slonimsky's "Möbius Strip Tease"); punched paper tape (all scores for the RCA synthesizer); nonpaper assemblages of various kinds and dimensions (Nelson Howe's "Fur Music"); or a kit consisting of paper discs, clasps to hold the discs in position, various charts—both opaque and transparent, and an instruction booklet (Erhard Karkoschka's "komponiere selbst!").

An innocent-looking, booklike object may contain pages which fold out in any of various ways (Roman Haubenstock-Ramati's "Interpolations"); a group of loose leaves (Alvin Lucier's "Action Music for Piano," book 1); a long strip of paper folded in accordion pleats (Mauricio Kagel's "Metapiece"); pages of various sizes bound together resulting in the juxtaposition of musical ideas from more than one page (Barney Childs's "Nonet"); or a large, flat square to be laid on a table and played from various sides simultaneously (Larry Austin's "Square"). Normal turn-the-page, book-format scores appear in a great range of sizes;[4] for example, Mauricio Kagel's "Prima Vista" measures 14 × 19 centimeters while Karlheinz Stockhausen's "Klavierstuck XI" measures 54 × 93 centimeters. Slides, filmstrips, tapes, discs, or cassettes may constitute entire works by themselves or be used in conjunction with other materials to create the total score. Works such as many of these could not be prepared for public dissemination using the materials and techniques traditionally associated with the printing of music. Once produced, they continue to cause problems. The lament of one publisher dealing with new music is that "composers know nothing about regulation-size racks in music stores and size 317a envelopes" [2, p. 59].

Even assuming a normal, flat piece of paper, the notation it bears may have little, if anything, to do with the traditional representations of music parameters such as pitch, rhythm, timbre, or expressiveness.[5] The publisher can hardly turn to a skilled music engraver, typist, or copyist to prepare for

4. Only complete performance scores are referred to here, not miniature scores intended primarily for use in study

5. For collections of notation examples which include selections from avant-garde pieces, see [3] and [4]. It is interesting to observe how many books *about* new music are themselves *like* it. For example, Karkoschka's book includes foldouts, oversized charts contained in a pocket attached to the back cover, and examples which require the reader to turn the book 90 degrees.

duplication a score which is devoid of notes as such (Ton de Leeuw's "The Dream"); such a score has nothing to do with the particular expertise or the specialized equipment at the disposal of one of these craftsmen. Prior to the development of practical photoduplication processes,[6] many new works currently available would have been virtually unpublishable. Only by employing new technologies can many new notations be reproduced reasonably economically—those which appear to be freehand drawings (Carolee Schneemann's "Snows"), which incorporate color (György Ligeti's "Articulation"), or which are too complex for traditional methods of processing to be practical.[7]

Music as a Graphic Art

If notations in avant-garde music were standardized, engraving or typing techniques might be developed to deal with them. Many attempts in this direction have been and continue to be made. Kurt Stone, one of the most vocal proponents of standardization, states his aims in attempting to create an *Index of New Musical Notation* as being "to reduce today's excessive and counter-productive notational Babel by selecting from existing music the most practical and efficient signs and methods, and by suggesting, eventually, that they be accepted as the basis for a new notational common language, thus making possible more and better performances of a large body of contemporary music" [5, vol. 7 (January–February 1973) [p. 1]]. Another guide for standardization includes the "notational symbols which appear with greatest frequency" [6, preface]. This selection of elements of notation on the basis of frequency of occurence is no less arbitrary than selection based on practicality and efficiency as suggested above. Both suggest an obliviousness to the implicit contradictions between "standardization" and "avant-garde" and an insensitivity to the stultifying effect that the early adoption and rigorous enforcement of a unified code might have on the evolution of yet more desirable representations of musical ideas, or, indeed, on the evolution of musical ideas themselves.

Any number of idiosyncratic defenses of the status quo can be found with little difficulty. For example, the composer Cornelius Cardew says that compositions "need camouflage to protect them from hostile forces in the early days of their life. One kind of protection is provided by the novelty and uniqueness of the notations; few musicians will take the trouble to decipher

6 The term photoduplication is used here to include all kinds of photocopying, thermography, and electrostatic processes.

7. It is interesting to speculate about the extent to which avant-garde music ideas are shaped by the possibilities offered by the new technologies and the extent to which the new technologies are affected by the creations or demands of the artists.

and learn the notations unless they have a positive interest in performing the works" [7, p. 4]. A very perceptive observation on new music notation is: "The original function of notation—to preserve for posterity—has today been taken over by the recording. Notation is therefore set free to assume any form, no longer needing to foreshadow the end-result (in some cases, however, new scores include a recording in a pocket in the back, so that we are given both specification and description of the finished work)" [8, p. 147]. Viewing the score itself as a work of art is yet another argument against standardization. For example, it has been said that "some of Cage's recent scores—meticulously disposed assemblies of letter and symbols . . . — can be read as exercises in abstract score-making; realization in sound being almost irrelevant to what is already a finished work of art" [8, p. 153]. Nonetheless, attempts to establish a single system continue to be made and, while they are usually put forth as being in the best interests of composers and performers, they are also of interest to the intermediaries—the publisher and the librarian.

While historically publishers and printers have played an important role in the development of standard music notation, this is not so likely to occur in the twentieth century simply because it is not absolutely necessary. Numerous ways of indicating essentially the same musical idea or numerous variations in the representation of essentially the same symbol are not "expensive" to reproduce by means of photoduplication.[8] Thus less internal consistency from one work to another is necessary.

This notational chaos in no way implies a lack of interest in high quality design, however. For example, the covers of Paul Arma's compositions bear a copy of a graphic specifically commissioned from great contemporary artists such as Chagall, Calder, or Arp to complement the music [9]. In this case, at least some of the visual aspects of the work are controlled by the composer, though of course his publisher must consent to cooperate. In other cases, the publisher may take the initiative. Interest in the expression of a general house style and in the overall graphic design of each piece individually is shown by the publications of some firms, notably Universal Edition (Vienna) which pays a great deal of attention to the visual impact of the works on its extensive list of avant-garde music. This treatment of music as graphic art is essential to the preservation of the character of many compositions of the twentieth century.

Some publishers of new music have dispensed with typing, engraving, or fine professional copywork altogether, even when traditional notation is involved. Of course some musicians dislike this since it frequently results in scores which are unnecessarily difficult to read. As the composer Thom Ritter

8. A study of the effect on performers of playing from an autograph facsimile as opposed to more "remote," professional copies might be very interesting. How does a performer respond to the idiosyncrasies of the composer's hand as opposed to the style of the foundry punch caster or the engraver or the editor?

George says, "Certainly engraving, exquisite professional copywork or music typewriter preparation of a manuscript costs the publisher more to produce. But the greater legibility, permanence, and pride of workmanship have rewards for those who seek these qualities" [10, vol. 4 (Fall–Winter 1972), p. 17]. Nevertheless, the trend away from traditional methods of manuscript preparation continues.

Computer Applications

The use of the computer in the preparation of music scores for publication, while still relatively expensive, will undoubtedly become more and more standard. The music editing and printing program, MSS, developed at Stanford University is an example of a sophisticated system which handles traditional notation. Of great significance in this program is the ease with which symbols can be entered and with which the score can be edited by making corrections, additions, and deletions. Details affecting the legibility of the score such as alignment of staves, spacing of notes, and justification can be dealt with automatically before final printout. Hard copy output is produced through a Xerox printer. Multiple copies of a page can be made on the spot, or a single copy can be used as a master for some other kind of duplication. The result is music which looks much as though it had been prepared by an excellent music typist. The developer of MSS, the composer Leland Smith, says of his system:

> It is reasonable to predict that some computerized system such as [MSS] . . . will eventually be utilized for most music publication. The time required to set up a page with this system is already competitive with good hand copy work. This time is much less than that needed for engraving or music typewriting. None of these older methods can match the ease of editing and entering corrections of all sorts that a computer program can offer. As computer time and equipment become less and less expensive, it seems likely that this method for printing music will prove to be economically attractive and, as a result, present day composers will gain much more ready access to quality publication. [11, p. 306]

The availability of optical character recognition (OCR) systems capable of reading at least standard music notation will undoubtedly have an impact on the publishing of music. The elimination of the time-consuming and error-prone manual encoding process is of great importance. The program DO-RE-MI, developed by David S. Prerau in 1970, transforms a large number of elements of music notation into the computer-usable language DARMS, an established music representation [12]. An OCR system such as DO-RE-MI used in conjunction with an editing and printing system such as MSS could provide very efficient manuscript preparation. While the required equipment would demand a large initial investment, it would probably pay for itself quickly in a large publishing house.

It is clear that interest in utilizing the new technologies for music publishing exists and that the necessary technology and know-how for music applications are not only feasibilities but realities. It seems likely that computer applications usable for music publishing will continue to be developed despite the skepticism expressed by some.[9] Of course the use of automated systems is not and would not be restricted to use with avant-garde music. But it is the avant-gardists who are most active in the development of the new technology—perhaps because so many of them feel at ease with computers which they use for other areas of their work (composition, realization, or analysis) or because they are particularly eager for access to inexpensive, quality publication.

Audience and Distribution

Music publishing, like other businesses, is inevitably affected by the economics of the times, such as rising costs of materials and demands for higher salaries. Because the publication of much new music has little, if anything, in common with publication of traditional music, an established music publisher might well find that to put out avant-garde scores would create an additional financial burden because of the need for special expertise (from editors to binders to distributors) or for mechanical equipment which he does not have already at his disposal. A score that is totally foreign to anything a standard music firm is equipped to handle in terms of personnel or hardware is likely to be rejected by the firm. Of course, if publication of such a score were certain to be lucrative. the publisher might make special arrangements for processing it, but that is not usually the case.

The publication of concert music in general, and avant-garde music specifically, is influenced by the general decline in the number of amateur musicians who purchase scores for leisure performance in their own homes. The publisher can no longer count on direct sales of contemporary music to the general public to the extent that he could in the past; nor can he count on large sales of favorite classics to subsidize new, untried music to the extent that he could in the past. Recorded music in its various forms has replaced much casual live performance. Thus many modern day music lovers are exclusively listeners.[10] Of course exposure to a composer's works through recordings is usually good for publishers indirectly; in this way a following for a specific composer may be built up which, in turn, may lead to higher fees

9. For example, one critic has written, "Unfortunately . . . although the technology may be available, funds for development are not, nor are they likely to be in the near future" [13, p. 377].

10. In many cases it matters little to the publisher whether the buyer purchases a record or a score, since more and more publishing companies own record companies and vice versa.

for recording rights to his next composition, to increased interest in live performances of his music (resulting in the collection of appropriate performance fees), and perhaps even to purchases of his printed scores. In general, however, it is safe to say that most avant-garde music is purchased by professional musicians or by libraries attempting to serve their needs.

Since music, as a general rule, is relatively expensive, professional musicians often purchase only scores they intend to use extensively, edit for personal use, or analyze in score. Short-term study copies are normally borrowed from libraries. Music which is still under copyright, and this includes virtually all the music being considered here, is sometimes so extremely expensive that a practicing musician can afford to purchase personal copies only when absolutely necessary.[11] Moreover, since a piece of music usually does not attain "standard repertory" status until it has been around for quite some time (fifty years or so), many musicians find it easy to justify not buying scores of new music on the grounds that they may prove to be of only ephemeral value. In addition, people often prefer to use the same piece of serious music over and over and may purchase additional, different music only rarely. In short, serious music in general sells in very small quantities, and contemporary serious music in even smaller quantities.

Periodical Publications

Many contemporary composers have responded to the seemingly overwhelming difficulties of getting their music published by handling at least some of their own music themselves, that is, renting or selling photocopies upon request. Some idea of the number of highly reputed (as well as relatively unknown) composers who have "unpublished" works available for public performance can be gleaned by looking through any issue of the *Directory of New Music*[12] and noting the extensive listings of works available directly from the composer, not from a bona fide publishing house. Similarly, the *Newsletter* of the American Society of University Composers has a section in each issue devoted to "compositions available," and here again a large number of works listed are available from the composers only [15]. Personal "publishers' lists" such as these are a common phenomenon currently and seem to generate at least some sales and rentals. In addition to creating possibilities for some small income (prices are usually very low) for a composer of otherwise "val-

11. Claude Debussy's second set of "Preludes" for piano, for example, cost about $12.00 until late in 1968, fifty years after his death, when the work fell into the public domain and the price dropped to about $3.00.

12. The *Directory of New Music* is an annual index containing "a list of recent works by living Composers. . . Both published and unpublished works are accepted [for listing], as long as both score and parts are available to the public, either for sale or rental" [14, 1975 ed [p. 2]].

ueless" works, they provide an extremely important method for keeping in touch, artistically, with his colleagues.

The communication needs of composers are met even more directly by periodicals whose contents are primarily music scores.[13] The appearance of anthologies of creative works as periodicals is not uncommon in other fields (for example, poetry or science fiction magazines), but this format has not been so widely used for music.[14] In the past few years, however, a number of such music periodicals has appeared, a development having far-reaching implications for the dissemination of new music. I shall discuss briefly each of three of these (*Soundings,* 1972–; *Source: Music of the Avant Garde,* 1967–; and *ASUC Journal of Music Scores,* 1973–) in order to point out some important trends.

Soundings [17] represents the fruits of a one-man enterprise, is thrown together somewhat haphazardly, and is put out in as inexpensive a format as possible. The notice, "All information subject to change at the wink of an eye" [17, no. 9 (1975), second page from end], aptly describes conditions surrounding such things as prices, availability of back issues, contents of forthcoming issues, dates of appearance for new issues, and the publisher's address. The journal is organized on a break-even basis intended to involve the editor in as few legal and business dealings as possible. For example, each issue bears the notice, "All rights remain the property of the individual contributors"; the editor will have nothing to do with registering copyrights, making performance parts available, collecting performance fees, or negotiating recording contracts. Nor are composers paid for the right to include their works. Even so, there is apparently no lack of interest in submitting scores for publication in this periodical.

The texts and scores in *Soundings* are photoduplicated exactly as the editor receives them from contributing composers. Consequently, as many different type fonts, handwriting styles, and manuscript styles appear in the journal as are used by the contributors. Manuscript paper of varying specifications is used by contributing composers (for example, p. 205 in issue no. 7–8 has sixteen staves while p. 207 of the same issue has only ten staves, the staves being equally distributed over the page in each case); care in preparation is taken in varying degrees (for example, extraneous staves are removed from some scores but are written through in others); and various kinds of pens and pencils are used for copywork. For convenience of binding, all the scores are reduced or enlarged to the same page size.[15] The result is scores, bound

13. I am excluding from discussion periodicals which only occasionally include complete pieces of avant-garde music or which include works available from a standard music publisher

14. An important early publication of this kind is *New Music Edition* which appeared between 1927 and 1957 and was dedicated to issuing works "in the ultra-modern idiom" [16]

15. The page size varies from one issue to another, but within each issue all pages are of uniform size.

together, which vary from being almost as clear and neat as engraved music to being almost illegible. The editor, Peter Garland, is not unaware of these drawbacks; he regularly apologizes for them and solicits donations to be used to improve the situation. However, he thinks that an inexpensive publication such as this is needed and states his position quite clearly: "*Soundings* arose from a feeling that the work of musicians needed a much wider circulation than that afforded by current publications" [17, no. 1 (1972), p. 79]. The editor is himself a composer of serious music.

In contrast to publications as unassuming as *Soundings, Source. Music of the Avant Garde* [18] is put out by an established music publishing firm (Composer/Performer Edition), is handled in a highly professional manner, and is illustrative of very high quality production. The publisher retains all rights to works contained in *Source,* which seems reasonable since he is already equipped to fulfill resulting obligations such as granting permission for reprinting of examples. Indeed, many of the composers represented by works in *Source* have works published individually by Composer/Performer Edition.

Since *Source* is a publication much concerned with mixed media, intermedia, and in some cases pure graphic art, great attention is paid to typography, layout, and design. However, all music notation is done by hand, and not always by the same professional copyist. But it is always clear and attractive and relates well to the surrounding elements. As a result of this concern for more than simply bringing together a group of pieces, each issue of *Source* is a unified, satisfying creation quite apart from the artistic merit of the individual works contained therein.

The *ASUC Journal of Music Scores* [19] is representative of a third kind of publication—one put out by a professional organization (the American Society of University Composers) through a commercial publisher (Joseph Boonin). The first published proposal for this journal appeared in the society's *Newsletter* [15, vol. 5 (November 1972) [pp. 6–8]] and is of particular interest since it includes clear statements concerning the reasons for initiating this new music publishing venture and straightforward information about its organization. Members of the society deemed it necessary or desirable to establish the *ASUC Journal* because, in their opinions, "The amount of music publishing that presently exists in this country does not begin to reflect the activity in our field [music composition]" [ibid. [p. 6]].

The procedures to be followed in putting out the journal were outlined as simply as possible in the *Newsletter* for readers, prospective contributors, and subscribers. As in the case of *Soundings,* composers whose works appear in the *ASUC Journal* receive no payment and retain all rights. Like *Soundings,* the *ASUC Journal* contains scores reproduced in facsimile, but here the quality is much higher. This is no doubt partly due to the fact that the society's *Newsletter* serves as a means of communicating instructions to composers submitting works for consideration. For example, following an assessment of the problems posed by the first batch of scores submitted for publication, very brief, simple instructions to composers appeared in the *Newsletter*: "(1) Do not send

in scores with unresolved permission problems. Permission in writing must accompany the score. (2) Scores must make *good* camera copy. (3) Do not send tapes. (4) It would be helpful to provide one *typed* copy of any verbal instructions. (5) The volumes are 9 × 11" [15, vol. 6 (February 1973) [p. 3]].[16] Scores which will not reproduce well are rejected. As a result, while the works included are in varying hands, on varying types of manuscript paper, with instructions in varying hands or type fonts, the appearance of the journal as a whole is quite acceptable.

Of course periodical publication of music has many drawbacks. Each issue of the publications discussed above has various scores bound together necessitating that all be made to fit a single general format, though for some scores different modes of presentation would be preferable. For example, some scores which should appear loose-leaf are bound, and some which should appear in three dimensions are made to lie flat. Because of the sizes of the scores and the modes of reproduction, the notation is frequently difficult to read. One must take what is given and may not purchase only select compositions. The composer Charles Olson has pointed out a very important objection to the whole idea of several scores issued together: "because the space of a magazine is so (finally) small—*close*—a run of many men and women's pieces (no matter how good they are, if they are professional alone) tend to cancel each other out" [17, no. 1 (1972), p. 79]. However, the total number of works made available to the public through periodicals is very large, and it may be surmised that virtually all avant-garde composers "read" these publications either through personal subscriptions or in libraries.

Composer Publication

Composer-owned or directed firms specializing in the publication of new music present another alternative to standard commercial music publishing. For example, Kenneth Gaburo, an important avant-garde composer and music professor, is editor of Apogee Press, Inc., founded in 1965. David Cope, another avant-garde composer and music professor, is president of CAP (Composers' Autograph Publications), a nonprofit organization which, as its name implies, issues facsimile scores. This organization is "dedicated to the publication, distribution, and performance of contemporary music. All proceeds received above actual publication costs [are] distributed to the composers as royalties (50%), and applied to the production of recordings (through CAPRA Records), recitals, and *The Composer* magazine (50%)" [20 [p. 1]].

Independent composer-initiated ventures of various kinds are continually

16. Later when it was decided to make available recordings of all works published in the *ASUC Journal,* equally succinct guidelines were again printed in the *Newsletter* [15, vol. 7 (Fall 1974) [pp. 2–3]].

being proposed. For example, a recently published notice reads as follows: "A new cooperative publishing company for composers is being formed. . . . It is designed so that composers can have their solo and chamber music published in manuscript form and receive back a major portion of the selling price" [10, vol. 4 (1972), p. 25].

Occasionally, collective action on the part of composers has seemed necessary. The *ASUC Journal of Music Scores* discussed above is one example. Another example is the American Music Center, a nonprofit organization which composers may join by paying annual dues and which maintains a library of members' compositions available to conductors, performers, teachers, and students. In 1968 it announced the formation of "a corporation called Pioneer Editions, Inc. for the duplication, dissemination, and sale of members' unpublished scores" [15, vol. 1 (January 1968) [p. 4]]. That organizations such as these feel a need to enter the field of publishing actively suggests that their members are not content with publication possibilities offered them elsewhere.

Promotion

In spite of publication problems, composers continue to attempt to place their works before the public. It is true that most avant-garde composers are employed by colleges or universities, either as teachers or in residence, and thus are not entirely dependent upon royalties and performance fees for subsistence. But the publish-or-perish syndrome is as strong in the field of music composition as in any other academic area, and the creation, performance, and publication of works are important in establishing and maintaining security in many music department positions. Even without this kind of incentive, however, most composers, like most other artists, want to see their creations receive public recognition of some kind, if not generate income. Some assistance in this direction is provided by commissions, grants, and competitions for which the reward may be publication or promotion in lieu of or in addition to money. For example, a notice for the Alvin Etler Memorial Competition includes the information, "The winning work will receive a professional performance at Smith College and be published by the New Valley Music Press" [18, no. 11 (1973) [p. 120]]. In some cases, other types of assistance are provided which lead more indirectly to public exposure. For example, one recent notice reads: "The Composers Assistance Program, administered by the American Music Center with a grant from the Martha Baird Rockefeller Fund for Music, is intended to assist composers with the expenses of copying and reproducing scores and parts for their larger compositions when performances are assured which could advance their professional careers" [5, vol. 7 (March–April 1973), p. 4]. In cases such as this, duties usually thought of as belonging to the publisher are to be handled by the composer.

Standard music publishers who do issue avant-garde music usually do not employ all of the traditional methods of promoting it. They may still issue catalogs, take out advertisements in music periodicals, or send review copies to periodicals and sometimes complimentary copies to conductors and performers; but very few do all of these things and even fewer aggressively try to create performance opportunities. The best promotion for a music work is performance—live, on recordings, or on the air. In the past, publishers assumed some responsibility for arranging or at least encouraging public performances for works on their lists[17]—at least in part because they receive a portion, usually 50 percent, of the performance fees. This is no longer true to such a great extent.

In practice, the promotion of avant-garde music usually falls to the composers themselves whether or not their works are published. Most avant-garde composers have more or less unlimited access to concert halls on campuses and may be able to enlist the services of students and faculty for performances of their own and their colleagues' pieces. But performances outside these smallish circles are more difficult to arrange. The composer Carlton Gramer, for example, feels that the American Society of University Composers should direct itself to promoting "off-campus concerts (especially in large cities), publications, and radio and/or TV productions" for member composers [15, vol. 4 (July 1971) [p. 6]]. The general consensus among avant-garde composers seems to be that established publishers are somewhat lax in the whole area of promotion. A typical opinion is that expressed by the composer Gardner Read. In response to the question, "Are you pleased with the result [of having your music published]?" he replied, "If 'pleased with the result' means the visual appearance, or the fact that the works are available, the answer is 'yes.' If it means satisfaction with sales, promotional activities on the part of the publishers, resulting performances, critical evaluation, and general recognition, the answer is 'no' " [10, vol. 4 (Fall–Winter 1972), p. 18].

Summary

In general, then, composers of avant-garde music experience great difficulty in getting their music published. In many cases when it is published they receive no monetary remuneration for it at all. If it is published under a

17. For example, in the early 1940s, shortly after the then "new music" composer/pianist Béla Bartók and his pianist wife immigrated to the United States, Boosey & Hawkes, Bartók's publisher, "started a little concert bureau of their own" to arrange performing dates for the couple [2, p. 185] Public appearances of the Bartóks—playing Bartók, of course—could only help music sales. And in cases where the performance involved a concerto or similar work, Boosey & Hawkes was assured of rental income for the score and parts.

normal royalty contract (10 percent of the list selling price and 50 percent[18] of all other revenues), the income is likely to be negligible since sales are usually extremely small. Virtually no avant-garde composer could live on royalties. Only a handful do not teach, perform, or conduct, and most of these receive income from such sources as grants, commissions, or lecture tour invitations, or they are independently wealthy. By the same token, "few of the large American publishers could stay alive if they dependend solely on concert publishing" [21, p. 596], and they would encounter even greater difficulties if they depended solely on avant-garde concert music.

A 1965 Rockefeller Panel Report on the performing arts states in part that "a review is required of the entire system of publishing and distributing new music. As economic patterns have changed, this can no longer be done adequately by publishers, commercial or nonprofit, without some form of outside assistance" [22, p. 104]. While government subsidies are very common in European countries and take a number of forms, it is unlikely that they will become the norm in this country in the immediate future. Private patronage has long been an important kind of subsidy and will presumably continue to be.

A few farseeing, adventurous publishers will probably always take their places in the music scene. One such publisher was Emil Hertzka (1869–1932) of Universal Edition, who was "dedicated almost exclusively to the discovery, the encouragement, and the promotion—worldwide, ruthless, and victorious—of new composers and new, often far-out musical ideas" [2, p. 11]. Another was Walter Hinrichsen (1907–69) of C. F. Peters, who described the responsible publisher as someone who will "respect the integrity and individuality of the composers he represents, see that they have full copyright protection and, when possible, help them to make stimulating contacts and to further their careers by means of fellowships, composer-in-residence positions, and so on. . . . [He will] promote the music of his composers both here and abroad by traveling, attending conventions and going to concerts regularly . . . [and] accept the fact that the financial returns from publishing serious contemporary music will be likely to come, if at all, in the next decade, not next month or next year" [1, p. 492]. It is reasonable to assume that there will continue to be some publishers who serve contemporary music in the same or similar ways.

In the near future it is likely that proportionately less and less avant-garde music will be formally published as scores (compared to the amount written) and that proportionately more and more will appear on recordings. This would follow the current trend in the composition of scoreless pieces (electronic works, especially) as well as the more general trend to "record everything."

18. In general, the 50 percent figure applies to rental copies only if the composer submits the work ready for use, that is, with parts already extracted. If the publisher has to do this, he usually claims 75 percent of rental income.

Music publishers often seem to think that they are in the midst of crisis. One publisher's description of the first half of this century reads as follows: "It was a difficult time of change, transition, disorientation, reorientation for the composer, a time of confusion and mounting frustration for the performer and for the listener. But what was the music publisher to do? Where was he to turn? What was to be his guideline in the midst of spreading erosion of accepted values and time-honored standards?" [2, p. 203]. The current plight of the music publisher might well be described by repeating the above quotation simply replacing each "was" by "is." Essentially the same basic issues always face anyone who publishes music which is different from the established repertory: How is it to be assessed? How are its scores to be produced technically? How is the publication to be financed? In the case of much avant-garde music, workable answers have not yet been found to all of these questions, hence the extreme difficulties encountered in getting it published.

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A GENERAL MATHEMATICAL MODEL FOR INFORMATION RETRIEVAL SYSTEMS

Abraham Bookstein and William Cooper

This paper presents a mathematical model of an information retrieval system thought to be general enough to serve as an abstract representation of most document and reference retrieval systems. The model is made up of four components that, in one form or another, appear in every functioning system. It is proved that the basic organization of documents that the system provides for a user on receipt of a request follows from the properties and interrelations of the four components. Each component is then discussed in turn and it is seen that much of the existing theory regarding information systems can be viewed as an elaboration of this model.

Introduction

Information retrieval systems (by which will be understood here reference and document retrieval systems as opposed to data retrieval systems) have frequently been compared to communication systems in which an author communicates with a patron of a system by means of a document [1, chap. 1]. The patron, perhaps anticipating the retrieval mechanisms of the system, translates a felt need for information into a verbal request which he brings to the system; by means of the request, perhaps further transformed, and a processed version of the document collection (the "document surrogates" or "index records"), the system predicts the extent to which each document is "relevant" to the user, that is, would be judged by the user to be an appropriate response to his request. The system then acts as a switching mechanism, connecting its patrons to those documents likely to be of interest to them.

For a given request and a given document, different systems may have any of a number of different response capabilities. For example, some systems

[Library Quarterly, vol. 46, no. 2, pp. 153–67]

simply respond by predicting whether or not the document will be found relevant by the patron; at the opposite extreme a system may attempt to assign to the document a number indicating its degree of predicted relevance, or its probability of relevance, to the request [2]. The end result of this process is that the documents are given a structure that guides the user in his search for information; the set of documents is broken up into subsets, and these subsets are arranged in order of predicted relevance to the request as perceived by the system [3]. The patron is in effect advised to search the collection by first examining the documents in the highest ranking set, then those in the next set, and so on until either his need for information is satisfied or else he gives up. The partitioning of the collection, permitting a search that is more efficient than a random search of the collection, is the fundamental service provided by the system for its users.

We shall here provide a formal model of such a system. This model will abstract from functioning systems those mathematical characteristics that determine how these systems provide a structure for a set of documents in response to a request; it will also indicate, precisely, which features of the system are essential for that structure to be imposed. Models such as this are useful in that they help provide a unified view of a wide variety of systems that superficially differ considerably from each other, thereby contributing to the establishment of a theoretical foundation for the study of these systems.

In the first part of the paper, then, the model will be precisely defined and it will be shown that some of the well known characteristics of information retrieval systems follow necessarily from a small number of assumptions. By making explicit, in terms of our model, the assumptions underlying properties commonly accepted as characteristic of information retrieval systems, we hope to provide a necessary but often neglected stage of analyses of such systems. In the second part of the paper we deal more fully with each component of our model in order to show the wide range of systems it can describe. The types of systems described in this section of the paper are all well known; what we show is that these systems can be described precisely in terms of a uniform vocabulary provided by our model.

Definition of Model

On the basis of the above discussion, we formally define (see Appendix) an information retrieval system S as a quadruple $S = (I, R, V, T)$, where:

I = set of all possible "index records" that might be created by the system, each index record potentially being a surrogate for a document; these index records represent documents for the purpose of manipulation in the system. A specific collection of documents is represented by a subset of I.

R = set of "search prescriptions" that are recognized by the system. A search prescription is the system's version of the request for information as submitted by a patron. It may take the form of the patron's request or it may

require modification. For the purpose of conciseness, we shall assume that users offer the system requests directly in a form it can manipulate, and accordingly we will use the term "request" to refer both to the verbal statement offered to the system by a patron and the final search prescription.

V = set of "retrieval status values"—a simply ordered set (see Appendix) whose elements represent the possible decisions the system is capable of making. Though these values can be implemented in many ways in an operating system, we here consider them as constituting an abstract set structured by means of an order relation. We are interested in how this order relation is used to impose a structure on the set of documents (or more precisely, on I).

T = "retrieval function"—a function taking points in $R \times I$ to points of V. This function formalizes the retrieval mechanism of the system. For each request and each index record it determines a value from V, indicating the degree to which it is predicted that the document represented by the index record will be found relevant to the request by the patron. Alternatively, for each request, $r \epsilon R$, T defines a function $T_r: I \rightarrow V$.

In the following we shall prove that T_r induces a structure on I that reflects the order relation defined on V, and that this structure can be used to guide the patron in his search for documents. Some readers may wish to skip much of the rest of this section and continue with its summary.

Induced Structure on I

Let $\leq$ denote the simple order relation on V [4, pp. 208–23]; thus for $v_1, v_2 \epsilon V$ it is meaningful to say $v_1 \leq v_2$, or "v_1 precedes v_2." For a given request, r, let us define a relation, $\leq'$, on I as follows: if $i_1, i_2 \epsilon I$, then $i_1 \leq' i_2$ if $T_r(i_1) \leq T_r(i_2)$. The relation $\leq$ induces a number of properties on $\leq'$.

PROPERTY 1: $\leq'$ is reflexive.

Proof: For any $i \epsilon I$, $i \leq' i$ if $T_r(i) \leq T_r(i)$. But this is always so because $\leq$ is reflexive.

PROPERTY 2: $\leq'$ is transitive.

Proof: Suppose, for $i_1, i_2, i_3 \epsilon I$, $i_1 \leq' i_2$ and $i_2 \leq' i_3$. We want to show $i_1 \leq' i_3$. We know $T_r(i_1) \leq T_r(i_2)$ and $T_r(i_2) \leq T_r(i_3)$ by the definition of $\leq'$. Since $\leq$ is a simple order, it is itself transitive, and accordingly $T_r(i_1) \leq T_r(i_3)$. But this means $i_1 \leq' i_3$, as was to be proven.

PROPERTY 3: $\leq'$ is connected.

Proof: Let i_1 and i_2 be arbitrarily chosen from I. We want to show that if $i_1 \nleq' i_2$, then $i_2 \leq' i_1$. But if $i_1 \nleq' i_2$, then $T_r(i_1) \nleq T_r(i_2)$. Since $\leq$ is connected, this implies $T_r(i_2) \leq T_r(i_1)$. By the definition of $\leq'$, this means $i_2 \leq' i_1$, as was to be shown.

(We note that it is not necessarily the case that $\leq'$ is antisymmetric. For consider i_1 and i_2 where $T_r(i_1) = T_r(i_2)$ and $i_1 \neq i_2$. Then, since $\leq$ is reflexive, $i_1 \leq' i_2$ and $i_2 \leq' i_1$.) We shall call a relation that is reflexive, transitive, and connected a weak order. We have thus shown that the retrieval function, T_r,

from I to V induces a weak order on I (and more generally, any function $f{:}D \rightarrow R$, where R is simply ordered, induces a weak order on D).

Consequences of Weak Order

In this section we shall examine some properties of the set of index records, I, that result from the weak order defined on I. Although we will be proving these properties for I, it is clear that they are valid on any weakly ordered set.

Suppose a weak order $(\leq')$ is defined on a set I. Then we consider two points of I, a and b, as equivalent if $a \leq' b$ and $b \leq' a$. For any point $d \epsilon I$ the set S_d is defined as the set containing d and all points equivalent to d. It is easy to show that following properties hold:

PROPERTY 4: All points in any of the sets S_d are equivalent to each other.

Proof: Let d_1 and d_2 be any two points in S_d. Then $d_1 \leq' d$ and $d \leq' d_2$. Transitivity implies $d_1 \leq' d_2$. Similarly $d_2 \leq' d_1$, so d_1 and d_1 are equivalent.

PROPERTY 5: Every element of I is in one and only one set.

Proof· The point d is certainly in S_d, so we have only to show that each point is in no more than a single distinct set. Suppose $d \epsilon S_{d_1}$, and also S_{d_2}. If d_3 is any point in S_{d_2} then $d_3 \leq' d$ and $d \leq' d_3$ by the preceding property. But since $d \epsilon S_{d_1}$, then $d \leq' d_1$ and $d_1 \leq' d$. By the transitivity of $\leq'$, this means $d_3 \leq' d_1$ and $d_1 \leq' d_3$, so $d_3 \epsilon S_{d_1}$. Since d_3 was an arbitrary member of S_{d_2}, this implies that $S_{d_2} \subseteq S_{d_1}$. Similarly $S_{d_1} \subseteq S_{d_2}$, so $S_{d_1} = S_{d_2}$, which was to be shown.

We conclude that a weak order relation, $\leq'$, uniquely and "naturally" breaks the set on which it is defined into subsets such that each point is in one and only one set.

We next define a new set and a new relation. The new set, D, has as its elements the previously defined subsets of I; the new relation, $\leq''$, is defined as follows: For D_1, $D_2 \epsilon D$, then $D_1 \leq'' D_2$ if there are points $a \epsilon D_1$ and $b \epsilon D_2$ such that $a \leq' b$. The reader can show by arguments similar to those used above that this relation is a simple ordering.

Summary

We can translate these general results in terms of any information retrieval system as follows: Given a request, r, the function T_r uniquely breaks the set of index records, I, into a set of subsets, and induces a simple ordering on these subsets. This structure, in turn, breaks the set of documents in a collection into an ordered set of subsets. This property can be used in a search of the collection by means of the following idealized search procedure. To search the collection a system user begins by examining the "first" subset of documents; if he wishes, he continues by searching the "next" subset of documents, etc. Each subset is searched randomly. The system operates by reducing a random search of the full collection to random searches of the much

smaller subsets defined above; these subsets are presumed to be enriched with relevant documents. In the context of our abstract model, it remains for us to demonstrate that the above procedure is always possible. To do this, it is sufficient to show that there always is, in fact, a first, second, etc., point in the simply ordered sets with which we deal. But since our set of documents is finite, it is readily demonstrated that this is indeed the case.

The search procedure outlined above seems to be implicit in most information retrieval systems. The model makes precise how such a procedure depends on an assumed structure underlying the total system. It does not, however, permit comment on the advisability of such a procedure. To do this it is necessary to introduce decision theory concepts as in [5, 6, and 7]. These papers indicate when the idealized search described here may be considered as optimal.

Elaboration of Model

There has been much interest among information scientists in providing a unifying theoretical foundation for their practice. Certainly a model that makes explicit what, in essence, an information system is doing must be a part of this foundation. But if that model is to be at all attractive, it should provide a natural basis for discussing topics felt to be significant in the field. That the model described here provides such a base can best be shown by considering in greater detail each of its components in turn.

Index Records

The index record is a transformed version of the document. While there is an information loss in going from the full document to the index record, just as the document is itself an imperfect expression of what the author intended to communicate, this loss is currently a necessary cost of creating an entity that the system can efficiently manipulate in the course of a search. Yet, as the model created in the paper emphasizes, the system cannot make any decision as to the probable relevance of a document to a request that requires information not available on the index record.

Anything the system operates upon directly in response to a request can be considered an index record—for example, the document itself if the system is capable of taking into account all the information contained therein. In a typical information system, however, an index record is made up of "index terms" chosen to represent the content of a document; in this representation most of the information contained in the grammatical and logical interconnections among the words in a document is removed. Similarly, requests are also usually represented as a set of index terms. Once the index records have been created, the system searches for relevant documents by means of a se-

quence of steps that includes the matching of the index terms of the records with corresponding terms representing a request. So far as this model is concerned, the index terms can be considered to be a set of abstract marks, some of which are assigned to each document. To describe fully any specific indexing language, at least three aspects of the language must be discussed:

1. Syntax: rules by which the marks are constructed. In some cases these marks are identical to the customary representation of natural language words and phrases, which, when they function as indivisible units, are sometimes called "descriptors." In other cases an abstract notation is used. A more complex index term may be formed by associating weights with descriptors, or by using other devices, such as roles or subheadings, which provide a structure for the terms and can be taken advantage of in the search procedure. Which is the case is determined by what is convenient for the user, and, in part, by the structure of the language. For our purposes, it is important to recognize that ultimately the syntax creates a set of "legitimate" marks, or index terms, a subset of which may define a document for the purposes of the system. A more detailed discussion of possible implementations may be found in textbooks such as [8].

2. Structure: the relationship between index terms. This structure may be *extrinsic* in that it is made explicit in a schedule or thesaurus provided by the group responsible for the construction and maintenance of the index language, or it may be *intrinsic* in that it is determined by how the terms are in fact applied to documents. The extrinsic structure most commonly takes the form of a set of trees [9], sometimes called a forest. At one extreme we have the hierarchical schemes, such as the Dewey Decimal classification, whose

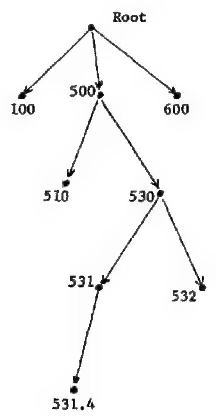

FIG. 1.—Tree structure illustrated by Dewey Decimal classification. Each node represents a class member, and includes the classes represented by the nodes it points to.

structures can formally be described as a single tree (see fig. 1). In such cases the notation tends to be abstract, and in fact is a symbolic representation of the path between the root of the tree and an index term at a node.

A faceted scheme can usually be described as a set of trees, with the index term being a collection of path descriptions, one from each tree or facet. If a facet is "omitted" from a particular expression, it can be considered as equivalent to choosing the root of the tree corresponding to that facet, the root being an extra node added for this purpose (see fig. 2). As just described, a faceted scheme has no implications regarding the order of the facets; an index record for a document is a *set* of nodes, and only the choice of nodes is of concern. This can be considered a strength of such a scheme since it doesn't impose on a patron the order felt important by the creators of the scheme. This freedom from a predetermined ordering overcomes the problem of distributed relatives: if a patron is interested in a term taken from the second facet, he need not consider each term from the first facet under which it may have appeared; he would simply enter the term into the system as a request. Unfortunately such a system is difficult to implement.

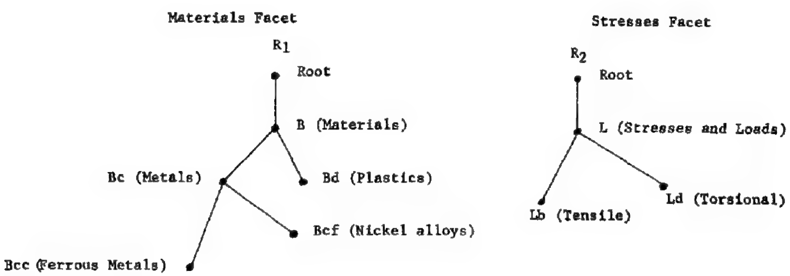

FIG 2.—Forest of trees, representing a faceted notation. An index term such as *BccLb* represents documents about tensile stress in ferrous metals; it is built up from a node from the materials facet and one from the stresses facet. A document about ferrous metals, but saying nothing about stresses, is represented by *Bcc*, or *Bcc* R_2 if all facets are made explicit. Adapted from [8].

Because of the many attractive properties of a tree structure with regard to implementation, there is considerable pressure to transform a faceted scheme into a single tree. Defining a "natural" order of the facets in effect accomplishes this goal, and the string of path descriptions becomes a single path description of the enlarged tree. A subject heading language which allows form subdivisions and subheadings can be included in this class of languages. We consider that the distinction, sometimes made in discussions of hierarchical and faceted schemes, of precoordinated as opposed to postcoordinated languages becomes blurred when an order of facets is imposed on a faceted

scheme. With such an order, a faceted scheme can be formally represented as a single tree, with all the rigidity that this implies. Once an order is imposed, the main difference between a faceted scheme and its tree representation is one of economy. The explicit factoring of a tree into its facets, should such an operation be possible, is the most economical way to represent the tree. This consideration is recognized in the Dewey Decimal classification in terms of the various subdivision tables included with the schedules.

At the opposite extreme from the hierarchical languages are the uniterm type languages. Here, so far as its originators are concerned, the structure consists of a large set of trees, one for each key word. Each tree has but two nodes, the root indicating that the term is not applied, and the leaf indicating that it is applied to a document. The index record may be made up of a list of natural language terms or else be represented by a binary vector; the latter is in fact a set of path descriptions, one path for each tree, with the trees ordered (see fig. 3).

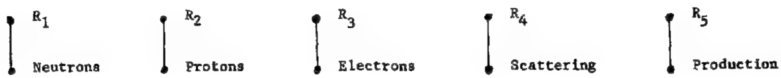

FIG 3.—Forest representation of a uniterm type of system. A document about electron scattering may be represented by the terms (electron, scattering), or explicitly as (R_1, R_2, electrons, scattering, R_5). The binary vector (0, 0, 1, 1, 0) is a commonly used compact form of this representation.

A distinction may be made between indexing a document and indexing a subject which may possibly be one of a number dealt with in a document. The distinction produces no difficulties for a classification scheme, as each subject is represented by a single term. However, in a uniterm type of scheme, when a subject may be described by several descriptions, confusion may result. Uniterm systems can be generalized by means of devices by which several descriptors describing a single subject are consolidated into what is effectively a single complex index term. These devices are referred to as "links." An example is the concatenation of notations from different facets of a faceted scheme into a single term.

Thus we see that so far as extrinsic structures are concerned, a wide variety of languages can be described in a unified manner as a forest of trees. For some languages this forest consists of a single luxuriant tree; in others, of a large number of modestly adorned trees consisting only of a root and a single leaf. Further we see that there is an intimate relation between the marks associated with a document and the extrinsic structure of the language. Imposing a structure on a language has a number of advantages. For example, it guides the indexer in assigning terms to documents; it helps the patron, or the system acting in his behalf, choose terms with which to probe this collec-

tion and to plan a search strategy; it helps clarify the meaning intended for a term.

The intrinsic structure of a language has received much attention as part of experiments on automatic indexing and searching. Graphic representations of the intrinsic structure have been called "semantic roadmaps" in the literature [10]. This structure can be used directly in guiding a search, or indirectly, as in the construction of clusters of similar documents [11, 12], or clusters of similar terms as in a thesaurus [13].

3. Semantics: rules for how marks are to be applied. The semantics of a term so far as a system is concerned is the potential set of documents to which it is applied. It is what the term "means" to a system, described by how it applies the term to documents coming into the collection. Here the evocative picture of a many-dimensional concept space, in which each point represents a precisely defined idea, is useful. In this space index terms and documents are represented by sets of points. When indexing a document, one tries to choose index terms collectively representing regions of concept space that cover as much as possible of the set representing the document, while covering as few points as possible outside that set. The structure of a language guides the user from one term to related terms, leading him to the most appropriate ones, and also controls for the fact that different individuals will consider a term as covering somewhat different regions.

From the point of view of our model, it is important to recognize that the choice of index terms determines the retrieval capability of the system and that ultimately the rule governing whether or not an index term ought to be applied to a document should follow from considerations as to the consequences of that act for the future operation of the system.

These rules assume a wide variety of forms. They are informally contained in the scope notes of classification schedules and authority lists. Attempts to make these rules precise, as must be the case for automated systems, tend to depend on word counts. An early and simple example involves assigning to a document all words not in a stop list that occur most frequently in the document [14]; here the set of permissible index terms is the words of a natural language that are not on the stop list. It is also possible to collect groups of natural language words into concept classes, and the index terms assigned to documents will represent these classes rather than individual words [15]. More elaborate procedures involve comparing how often a word occurs in text with how often it is expected to occur on the basis of the total number of occurrences of the word in a collection [16]. These well-known devices can all be seen as ways of defining the "semantics" of the system.

Under some methods words selected from a natural language are designated as "content bearing" or "informing" words because of their syntactic or other properties, and if such a word occurs at least once in a document, that word is used as an index term for that document [17]. The set of content bearing words, which may be derived automatically, makes up the indexing

language. Recently attempts have been made to relate explicitly the indexing decision to the expected consequences of the decision [5, 18]. This approach provides a bridge between the other two approaches. The set of possible index terms is all the words in a natural language, but a criterion can be deduced that allows one to assess the likelihood of any term ever being used, in effect permitting a list of content bearing, or informing, words to be defined.

Search Prescriptions

The user seeking information transforms his "information need" into some linguistic expression or request. The request may be further transformed into a search prescription, an object that the system can manipulate. In the case of SDI systems, the search prescription is commonly called an "interest profile." The end result may be a record parallel to that produced when documents are transformed into index records, in which case the considerations voiced there apply here as well.

Retrieval Status Values

The retrieval status values define the extent to which the system is capable of distinguishing documents with regard to its expectation of their being relevant to a request. They may be realized in a number of different ways. The simplest instance is when the system can only distinguish between whether or not a document is relevant. The conventional library is an example. A request is here defined in terms of a subject heading, or a classification number. The listing of a book under the subject heading, or its placement on the shelves according to the class number, corresponds to assigning the status value "retrieved"; all other books are implicitly assigned the value "not retrieved." In other systems the status value may be defined by whether or not a document is identified on a list given to a patron. Thus the mechanisms provided for retrieval by conventional libraries can be discussed by terms of the formalism introduced in this paper.

More complex systems will allow distinctions to be made between predicted degrees of relevance. These distinctions may be explicit, as when a number indicating the degree of relevance is printed alongside the bibliographic description of a document; or it may be implied, as when the system provides a list of documents printed in order of assessed relevance.

We see that retrieval status values may be realized in a variety of forms, but regardless of implementation all share one basic characteristic: in one way or another they provide a simply ordered set of categories for distinguishing documents. The assignment of retrieval status values to documents assists the patron by suggesting an idealized search order, and also by providing clues as to when the search should terminate.

Retrieval Function

The retrieval function represents the mechanism by which, given a request, the system decides how to assign retrieval status values to documents. As a wide variety of alternatives are possible, a few examples are in order. For each case a simplified model of an information retrieval system, that allows the principles behind the retrieval function to be most clearly enunciated, is presented.

1. *Subject catalog model.*—The simplest and most widely used reference retrieval system is the subject catalog of a conventional library; the index terms, often called "subject headings," are taken from a set, A, usually referred to in this context as an authority list; possible structural complexities of these terms are ignored in this simplified model. Several terms may be assigned to a document. The patron in turn chooses a *single* term from the authority list to represent his need. The retrieval status values are "retrieved" or "not retrieved," here denoted by "1" or "0" respectively. The retrieval function, T, assigns the value 1 to those documents whose index records are filed behind the index term, or subject heading, representing the request. Other implementations of this system take such forms as subject book catalogs, and KWIC and KWOC indexes.

More formally, the system can be defined as follows, where 2^A will denote the set of all possible subsets of the set A:

$$R = A, \tag{1A}$$
$$I = 2^A, \tag{1B}$$
$$V = \{1, 0\}, \tag{1C}$$
$$\text{For } r \epsilon R,\ i \epsilon I\text{: } T_r(i) = \begin{cases} 1 & \text{if } r \epsilon i \\ 0 & \text{otherwise} \end{cases} \tag{1D}$$

2. *Inverted file systems.*—These systems, sometimes implemented as "optical coincidence" or "peek-a-boo" systems, are similar to the subject catalog systems described above, except that now the user may form a request made up of several terms. A document is retrieved if its index record contains all the terms making up the request. This system can be formalized as follows:

$$R = 2^A, \tag{2A}$$
$$I = 2^A, \tag{2B}$$
$$V = \{1, 0\}, \tag{2C}$$
$$T_r(i) = \begin{cases} 1 & \text{if } r \subseteq i \\ 0 & \text{otherwise} \end{cases} \tag{2D}$$

An overlap system can be defined by allowing a document to be retrieved even though the request is not contained in the index record, provided that the overlap of terms satisfies certain conditions. For example, the size of the overlap may have to exceed some threshold, t, in size:

$$T_r(i) = \begin{cases} 1 \text{ if } \|r \cap i\| \geq t \\ 0 \text{ otherwise} \end{cases} \tag{2D'}$$

though some normalized form taking into account the magnitudes of $\|r\|$ and $\|i\|$ would be preferable. Here $\|r\|$ denotes the number of elements in the set r.

3. *Ranked output systems.*—A higher level of complexity results if documents are ranked according to their assessed relevance to requests. It is convenient here to represent the documents and requests as binary vectors taken from a space whose dimension is equal to the number of terms in the index vocabulary. Let B denote this space, and $\|r\|$ denote the size of a vector r in this space. A formal description of one such system would be:

$$R = B, \tag{3A}$$
$$I = B, \tag{3B}$$
$$V = [0, \infty], \tag{3C}$$
$$T_r(i) = \frac{(r, i)}{\|r\| \cdot \|i\|} \; . \tag{3D}$$

Here (r, i) denotes the usual inner product between the vectors r and i. Further elaboration would permit weights to be assigned to terms, thereby indicating varying degrees of relevance of a term to a document. Aside from changing B to the general vector space of n dimensions, the model remains as above. Such systems are sometimes called "weighted indexing systems."

4. *Boolean systems.*—In this final example we shall consider requests in the form of Boolean expressions. Since much confusion exists in the literature with regard to this topic, we must make precise what *we* mean by such a system.

First let us define the set E of legitimate Boolean expressions. Let A denote the set of legitimate index terms. Then

if $a \epsilon A$, then $a \epsilon E$, that is, an index term,
by itself, is a legitimate expression; (4A)
if $s \epsilon E$, then (not.s)ϵE; (4B)
if s, $t \epsilon E$, then (s.and.t)ϵE; (4C)
if s, $t \epsilon E$, then (s.or.t)ϵE. (4D)
Nothing else belongs to E. (4E)

A member of E will be called a "statement." A statement, s, is true with regard to a document represented by the index record i, expressed by $f(s,i)$ = TRUE, under the following conditions (an index record i is considered to be a subset of A): If

$s \epsilon i$, that is, if the request is simply an index term in i; (4A′)

s = (not.t) and t is not true; (4B′)
s = (x.and.y) and x and y are *both* true; (4C′)
s = (x.or.y) and x or y or both are true. (4D′)
Otherwise s is false, written $f(s, i)$ = FALSE. (4E′)

Such a system can now be formalized as follows:

$$I = 2^A, \tag{4A''}$$
$$R = E, \tag{4B''}$$
$$V = \{1, 0\}, \tag{4C''}$$
$$T_r(i) = \begin{cases} 1 \text{ if } f(r, i) = \text{TRUE} \\ 0 \text{ if } f(r, i) = \text{FALSE} \end{cases} \tag{4D''}$$

It is emphasized that the Boolean operators, for example "not.", are applied to *requests* to convert them into other requests; they are not applied to index terms, and the assertion " 'not.a' is an index term describing a document" is without meaning.

Boolean systems are sometimes combined with weighted index systems, a perilous undertaking so far as the logic of the system is concerned.

Conclusions

In this paper we have defined a model intended to describe a wide variety of information systems. While the model is an extremely simple one, it does provide a perspective that unifies a wide variety of systems, and allows us rigorously to prove interesting properties of these systems. Furthermore, much of the theory of information retrieval can be understood as an elaboration of this model.

Our model and the ensuing discussion emphasize the logic of information retrieval systems. Physical realizations of this logic may take a wide variety of forms. Card and book catalogs and subject bibliographies are well known examples. The organization of books on a shelf, made possible by the tree structure of classification schemes, is another; here a request is represented by the user's going to the appropriate place in the stacks, and the books located in that region are "retrieved." Thus at least some aspects of browsing are included in this model. On the other hand, some aspects of modern retrieval systems, such as feedback mechanisms, are not explicitly included in this model. The user is assumed to enter with a request; the model does not consider whether the request represents an initial attempt on the part of the user to get information, or is the result of previous experience with the system and, perhaps, is formulated with the assistance of the system as well.

A number of other models for information systems have been proposed. One such model, presented by Salton [15, p. 211], is essentially a restricted

version of the model proposed here. Another has been devised by Swets [6]. From the point of view of this paper, the Swets model can be thought of as extending models such as ours to include patron evaluations of the documents. Specifically, documents are thought of as being partitioned by users into those relevant and those not relevant to their requests. Swets then considers the distribution of numeric status values assigned by the retrieval function to documents in each of the two classes. Swets uses this model to provide a criterion for retrieving documents, in effect creating a higher order information system. While Swets assumes that V is the real line and that the distribution of V over the two classes are both normal, other models can and have been examined [7]. We thus see that the approach we take here is consistent with and complements earlier efforts at modeling information systems.

APPENDIX
SUMMARY OF NOTATION

A set is a collection of objects, sometimes called its elements. If c is an element of the set C, we will write $c \epsilon C$. If C_1 and C_2 are two sets, and every element of C_1 is an element of C_2, we will write $C_1 \subseteq C_2$. For any two sets, A and B, we shall define a new set, the "cartesian product" of A and B, as the set of all ordered pairs of the form (a,b), with $a \epsilon A$ and $b \epsilon B$; this set is denoted by $A \times B$.

A function, f, is a rule by which, to every element of a set called the domain of the function, is associated a single point in a set called the range of that function. If D is the domain and R the range, we can write $f{:}d \rightarrow R$, for $d \epsilon D$.

A relation on a set, D, is a means of defining a structure on the set. It is formally defined as subset of $D \times D$, where (a,b) is a member of the relation if a is related to b in the desired manner. A "simple ordering relation" is any relation that is reflexive, transitive, connected, and antisymmetric; in defining these terms we shall write $a \leq b$ if (a, b) belongs to the relation.

Reflexivity: the relation is reflexive if and only if $a \leq a$ for all $a \epsilon D$.

Transitivity: the relation is transitive if and only if $a \leq b$ and $b \leq c$ implies $a \leq c$, for all $a, b, c \epsilon D$.

Connectedness: the relation is connected if and only if for any $a, b \epsilon D$, if it is not true that $a \leq b$ (written $a \nleq b$), then it must be true that $b \leq a$.

Antisymmetry: the relation is antisymmetric if, and only if, for all $a, b \epsilon D$, $a \leq b$ and $b \leq a$ imply $a = b$.

A "weak ordering relation" is a relation that is reflexive, transitive, and connected, but not necessarily antisymmetric.

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THE COVER DESIGN

Guillaume van Parys, printer and engraver, worked in Antwerp between 1566 and 1586. His wife Mathilde was the daughter of the printer Nicolas van den Wouwere and was herself accomplished in the art of printing. They were living at the sign of the golden pelican on the Lombard Rampart in 1570. Guillaume died in 1586, and Mathilde carried on the office herself for another nine years.

The Van Parys office did not record voluminous production. The Royal Library at Brussels holds 45 of his works published between 1567 and 1586. Most of these publications, averaging fewer than 3 a year, were official documents in Flemish. Nineteen were proclamations of Philip II, and 1 was a proclamation of the Duke of Parma. After the death of Guillaume, Mathilde carried on a similar trade until 1595. Eighteen of her 28 publications held in the Royal Library were proclamations by Philip II, 2 were by the Duke of Parma. One of her publications in 1588 (?) was a true account in Flemish of the life of Mary Stuart.

G. Van Havre, in *Marques typographiques des imprimeurs et libraires anversois* (Antwerp: J.-E. Buschmann, 1883–84), recorded two printer's devices used by Guillaume van Parys. The earlier device features the Judgment of Paris in graphic allusion to the printer's name. From 1570 onward, he used the sign of the golden pelican for his device.

The Judgment of Paris device reproduced here appeared in *Den Spieghel des Cristen Levens* published in 1569. This Flemish rendering of the mirror of the Christian life was by Thomas van Herentals. The date of 1566 engraved in the top border indicates an earlier use, although the earliest work recorded by the Royal Library was published in 1567.

The portrayal of the scene is familiar enough and rendered with some charm. It concerns the Greek myth of the apple of discord. When Eris, goddess of mischief, tossed a golden apple inscribed "To the fairest" among the goddesses, Hera, Athene, and Aphrodite each laid claim to the prize. To resolve their conflict, Hermes, not averse to mischief himself, proposed that Paris, the once rejected son of Priam of Troy, judge the case and award the apple to the most beautiful goddess.

Paris accepted the responsibility of judging, and the goddesses appeared before him to receive his appraisal of their charms. Confronted by so much pristine beauty, he fell back on irrelevant promises to support his decision. Hera, shown with her peacock at the viewer's left, promised him power and dominion. Athene, appearing next to Hera, offered fame and wisdom. Aphrodite, accompanied by Eros, compounding the mischief, held out the prospect of the loveliest wife in the world. Paris, not a hard fighter or brilliant thinker in such matters, yielded to the charms of Aphrodite. He is shown awarding the apple to Aphrodite. At this point, Hermes discretely retires in the right background.

The judgment of Paris was followed by disaster. His desertion of the wood nymph Oenone, his abduction of Helen, the Trojan wars, the sack of Troy and Paris's own death while the resentful Oenone declined to lend him a hand, all followed in train. The Latin motto, *Voluptas sapiente honorisque ignara* ("Desire knows not wisdom and honor"), criticizes his judgment. Certainly he earned the enmity of Hera and Athene, but his was a hard case, to choose one from three powerful and jealous goddesses. He was bound to offend two of them.

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LIBRARY UNIONS: A REVIEW ARTICLE

Unionization: The Viewpoint of Librarians. By THEODORE LEWIS GUYTON Chicago: American Library Association, 1975. Pp. xiii + 204. $10.00 (paper). ISBN 0-8389-0187-5.

Trade unionism in American librarianship has experienced three major periods of development. The first two, which took place in the years directly following World War I and during the Great Depression of the 1930s, were rather short-lived efflorescences that emerged because of economic displacement or the threat of it.

The third period of library unionization emerged in the mid-1960s during a time of unprecedented national prosperity and library growth. At this time, it is well to remember, demand for librarians exceeded supply, jobs were plentiful, and rapid advancement became normative expectation. It was not fear of economic uncertainty that spurred librarians to unionize, as had been the case. As well as the ever-present wishes for increased salaries and benefits, there grew concern over the "professional" aspects of librarianship and desire among librarians to increase their influence over administrative decisions and library policies, a concern and a desire which equaled or even occasionally outweighed the wishes for economic gains.

Librarians were not alone in collectivization. Many white-collar groups, particularly public school teachers, found little satisfaction for their felt needs in older professional guilds or staff associations; they altered their professional self images and grew interested in formal trade unionism. They took the path that had been paved in 1962 by President Kennedy's Executive Order 10988, which directed federal government agencies to recognize employee organizations. This, in turn, provided the impetus for state and municipal legislation (for example, New York's Taylor Law) granting local public employees the right to organize and, no doubt, influenced in some measure the National Labor Relations Board when it overturned in 1969 a previous ruling of 1952 that had excluded academic librarians in the private sector from collective bargaining.

Unionization among librarians has now grown to large proportions that will grow larger. Because the third period of unions flourished in times of prosperity, not privation, because it has been nourished by enabling legislation, and because it is grounded in new beliefs among white-collar workers about the management and distribution of authority in institutions, there is every reason to believe that unions have now become a permanent fixture in American librarianship.

"The highest wisdom," Goethe wrote in his *Maxims*, "would be to understand that every fact is already theory." Highest wisdom, however, has come slowly in grasping the underlying principles of unionism or in formulating a theory even though we are surrounded by the facts of unionization. In part, this slowness is the product of the unusual position of libraries among social institutions, which made such a theoretical description difficult; in part, it is the product of neglect.

In 1939 Bernard Berelson seriously took up the question: How are unions in libraries possible?[1] Berelson is now quoted rather as a historian of the developments of public library unionism than as a theoretician of the library union movement. And while it is true that Berelson was the unrivaled historical source of library unionism for thirty-five years, he was equally the unrivaled theoretician, interested in the basic causes of library unions. He drew heavily on Sidney Ditzion's study of 1938, "The Public Library Movement in the United States as it Was Influenced by the Needs of the Wage Earners, 1850–1900" (master's thesis, City College of New York, 1938), to adduce the important social components of labor, the social backgrounds of the library movement, and the function of wage-cycle fluctuations in the growth of unions. Berelson sought a nexus between these diverse elements and the historical facts of library union development, which had then gone through its first two periods; and he attempted, in a heuristic fashion, to provide a theoretical basis for labor unions in libraries.

Both Berelson's history and analysis were unsurpassed until the mid-1970s, even though at least 300 articles had been published in library and related periodicals describing some aspect of unionism or collectivized library management between 1960 and 1975. These writings have consistently followed a "how-to-do-it" recipe, a recipe that describes rather than analyzes. A recent issue of *College and Research Libraries* (vol. 36, no. 2 [March 1975]) gave itself over almost entirely to a recitation of this method. Other studies, such as that of Vignone,[2] sought to use statistical measures to determine the views of librarians about unions, and Vignone's approach has been followed in a number of unpublished doctoral dissertations, which seek to explore various dark corners of the attitudinal thicket. Still others attempted a synoptic approach to the subject.[3] Yet this spate of "how-to-do-it" articles and other approaches have not produced a theory to explain the underlying facts of library unionization.

Although some gains were made in the area of academic unionization and

1. Bernard Berelson, "Library Unionization," *Library Quarterly* 9 (October 1939): 477–510.
2. Joseph A. Vignone, *Collective Bargaining Procedures for Public Library Employees: An Inquiry into the Opinions and Attitudes of Public Librarians, Directors and Board Members* (Metuchen, N.J.: Scarecrow Press, 1971).
3. Melvin S. Goldstein, *Collective Bargaining in the Field of Librarianship* (Brooklyn, N.Y.: Pratt Institute, 1968).

a number of labor theory specialists wrote insightfully about the unionization of other professional or occupational groups, library unions received little theoretical attention until I attempted to combine Berelson's nexus of historical development and wage theory with Georg Simmel's notion of conflict as an integrating process. For data, I used the changes in the rapidly developing labor law within the private sector of the economy.[4] This 1974 article was a sociological analysis of library unionization as it related to the central purpose of libraries. A few other writers have begun to nibble in the psychological sphere, although frequently dealing only with the general problem of library personnel management, not unions, and using materials drawn from the motivational psychology of MacGregor, Maslow, Simon, or March.[5]

The very few important theoretic statements about library unionism since Berelson have not been full-length treatments that interpreted quantitative data in the light of theory. The publication of *Unionization: The Viewpoint of Librarians* has altered that. This study, which investigates the causes and factors for the development of unions in libraries, is of greater significance and methodological sophistication than any that has preceded it. Theodore Lewis Guyton presents some surprising conclusions and advances a theory of library unionism, which, without doubt, will become a watershed for either agreement or dispute in subsequent investigations and discussions of the subject.

Written as a doctoral dissertation for UCLA's Graduate School of Management, this work shows little of the lugubriousness often associated with that genre. It is a tightly constructed work, rather fluidly written. At heart, it is a statistical analysis of survey research conducted among 715 professional librarians working in six Southern California public libraries, selected for representing a range of library sizes and a variety of socioeconomic and political conditions. Using a Likert-type questionnaire, Guyton has measured a number of variables and their degrees of relatedness to determine the characteristics of union formation and growth among librarians. It is the refined survey research and statistical technique, particularly in its treatment of attitudinal and environmental factors as independent variables affecting unionism that provides the solid basis for a theoretical interpretation of library unionization.

The research and writing for this study were apparently done in 1970–71. The bibliography is complete only to this date. Further, the extensive, perhaps the excessive, hiatus that occurred between writing and publication has removed some of the timeliness of the work. The recent recession, new developments and interpretations in the labor law, and current case histories—in

4. Roger Michener, "Unions and Libraries: The Spheres of Intellect and Politics," *Southeastern Librarian* 23 (Winter 1974): 15–25; reprinted in *Library Lit. 5—the Best of 1974*, edited by Bill Katz and Robert Burgess (Metuchen, N.J.: Scarecrow Press, 1975), pp. 110–31.
5. Donald J. Morton, "Applying Theory Y to Library Management," *College and Research Libraries* 36 (July 1975): 302–7.

fact, anything since 1971 in the field of library unionization—have not been included.

Guyton opens his book with a fine excursus through the history of public library unionism. He surveys the literature, he presents the development of famous unions, and he draws a pattern of public library unionization, emphasizing the elements held in common. Then he examines the historical influence of professional and employee associations on library collectivization, followed by discussions of the occupational characteristics, the economic position, and the employment environment of librarians. These chapters provide new understandings and conclusions about how librarians view and react to unions. They are particularly interesting for their observations about librarianship as a profession.

It is principally the conclusions about the environmental factors of library unionization, however, that cause Guyton in his final chapters to develop and elaborate a theory of library unionism. This theory is the central interest of the book.

Guyton proposes that "the condition leading toward the emergence of library unions is a diminished degree of contact and communication between administrators and librarians, created by the hierarchical structures of bureaucratization or administrative policy" and "that the motivation toward unionization results from an awareness of an incongruence between desired and realized job status." Further, "the proposed theory postulated that the function of the union is *not to challenge* administrators' authority, but *to share in decision-making* and otherwise obtain equivalent status as that of the administrators." (p. 164; my emphasis). From this he concludes that library unions stem from a "status ideology" rather than a "class ideology." After considering and rejecting the proposals of some major theoreticians of the labor movement, Guyton uses the work of Selig Perlman to refine his hypotheses.

Perlman is perhaps an odd choice as a theoretician for white-collar unionism. He published his famous and controversial work, *Theory of the Labor Movement,* in 1928, and he is usually associated with John R. Commons, his teacher and collaborator. In the Commons-Perlman approach, which drew heavily on Max Weber and Werner Sombart for historical generalizations as well as other important ideas, unionism is the technique by which workers band together to secure social and industrial rights. Having secured these rights, workers use unions to protect themselves from the effects of market competition, which through history has been intensified by the growth of markets and changes in production techniques. Thus unionism has both an offensive and a defensive characteristic, but invariably it was intended to promote the social interests of its membership rather than the needs of an abstract "working class." Collectivization is centered on opportunity consciousness and job scarcity. If the opportunity of keeping a job was threatened or mobility in the job denied, unionization resulted. Perlman's phrase, "dynamic job-consciousness," sought to explain the changes made by technology and market

expansion in a once tightly defined craft concept of job ownership, as well as the psychological dimensions of work.

In constructing a theory of library unionism, Guyton has essentially engineered an *Aufbau* to the Commons-Perlman explanation of the labor movement. It is a troubled and awkward construction that often lacks structural supports and contains what appear to be contradictory elements. It does not make a successful translation from the blue-collar factory worker to the white-collar librarian. Unionization, if nothing else, is a challenge to managerial authority, and a share in decision making is necessarily a diminution of administrative authority that impinges on the bureaucratic and hierarchical structures.

For instance, professional issues often outweigh, or at least balance, the economic ones as causes for library unionization. In Detroit, by contrast, auto workers demand only higher wages and better working conditions; they do not seek influence over the styling and design of next year's models. But it is, of course, over matters of "styling and design" that librarians most demand control, and it is these professional issues that have sparked some of the bitterest conflict in library unionization. Guyton, by characterizing library unionism as a product of status rather than class ideology, has been misled by library professionalism and has seemingly neglected the political redistribution of power that accompanies all transfers of institutional hegemony. Formal unionization demands class definitions of worker and manager; whereas status is conferred within either class—that is, there may be an élite among the workers and an élite among the managers. Guyton's structurally insufficient extension of Commons-Perlman, which stems from using a blue-collar template to draw a white-collar perspective, by no means closes the door on subsequent theorizing.

The blueing of the white collar in American librarianship has placed much of the traditional understanding of librarians under strain. The effects of this strain remain to be fully assayed; yet, Guyton's investigation into the causes of library unionization and the viewpoint of librarians toward unions is a substantial and worthwhile contribution that facilitates understanding in a most difficult, complex, and emotional area. Although the theory of library unionism that he develops does not completely articulate with the historical or empirical facts, it merits attention and consideration. Guyton's survey research and theoretical insights have cast some rays, however lambent, into one of librarianship's dark and troubling corners.

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INFORMATION SCIENCE IN THE SOVIET UNION AND THE WEST: A REVIEW ARTICLE

On Theoretical Problems of Informatics. International Federation for Documentation, Study Committee, "Research on Theoretical Basis of Information" FID/RI series. FID 435. Moscow: All-Union Institute for Scientific and Technical Information, 1969. Pp. 192. Fl 28.

Problems of Information Science: Collection of Papers. Edited by A. I. CHERNYI. International Federation for Documentation, Study Committee, "Research on Theoretical Basis of Information" FID/RI series. FID 478. Moscow: All-Union Institute for Scientific and Technical Information, 1972. Pp. 240. Fl 28.

Problems of Information User Needs. Edited by A. I. MIKHAILOV. International Federation for Documentation, Study Committee, "Research on Theoretical Basis of Information" FID/RI series. FID 501. Moscow: All-Union Institute for Scientific and Technical Information, 1975. Pp. 166. Fl 28.

Publications on Theoretical Foundations of Information Science: Abstracts of Selected Publications. Compiled by I. M. BASOVA, A. I. CHERNYI, and F. A. SVIRIDOV. International Federation for Documentation, Study Committee, "Research on Theoretical Basis of Information" FID/RI series. FID 513. Moscow: All-Union Institute for Scientific and Technical Information, 1974. Pp. 106. Fl 30.

Order from International Federation for Documentation, 7 Hofweg, The Hague, Netherlands.

These four volumes have been published by the Committee on Research on the Theoretical Basis of Information of the International Federation for Documentation (FID/RI). The chairman of this committee is A. I. Mikhailov, who is also head of the Russian All-Union Institute for Scientific and Technical Information (VINITI). These volumes have been edited by Professor Mikhailov and his colleagues at VINITI and have been produced by VINITI for the FID/RI.

Three of the volumes (with the exception of FID 478) are collections of papers concerned with aspects of the development of a general theory of information science or, as the Russians call it, "informatika" or "informatics." This is a subject which is of considerable interest to Russian scientists who are concerned with information services and particularly to the scientists working in VINITI. A significant effort has been made in the conceptual development of information science in the Soviet Union.

There are a total of 32 papers included in these 3 volumes, which are primarily concerned, as indicated, with the theoretical development of the study of information. Nine of the papers, those in FID 501, have as their theme "Problems of Information User Needs" and thus recognize the significance of user requirements in the development of information science.

The papers in these 3 volumes include contributions from Soviet scientists, from information scientists from countries such as England, France, Sweden, and West Germany (FRG), and from countries closely aligned with the Soviet Union, such as Czechoslovakia, East Germany (GDR), Poland, Rumania, and Yugoslavia.

The papers not only represent a wide geographical range but also a wide variety of technical interests. A flavor of the topics covered and the technical areas included in these volumes may be indicated by listing some of the more typical titles and their authors: "Informatics: Its Scope and Methods," by A. I. Mikhailov and his colleagues from the USSR; "Some Fundamental Aspects of Classification as a Tool in Informatics," by D. J. Foskett from the United Kingdom; "Preparation of General and Special Information in Social Sciences by Information Bodies," by G. Schmoll of East Germany; "Semantic Aspects of Information Theory," by Y. A. Schreider of the USSR; "Informal Communication in Science," by A. Merta of Czechoslovakia; "The Aging of Scientific Literature," by B. C. Brookes of the United Kingdom; "The Future of Access (Abstracting and Indexing) Services," by Dale Baker and P. V. Parkins from the United States and J. Poyen from France; and "Integrated Information Systems," by A. I. Chernyi from the USSR. Some of the typical papers in FID 501 on user needs are "A Pragmatic Approach to Research in Information and Documentation," by B. Tell and Z. Gluchowicz from Sweden; "Encyclopedic Dictionaries Satisfying User Needs," by H. Arntz from West Germany; "Scientist's Creative Potential: Clue to His Information Needs," by D. E. Shekhurin from the USSR; and "On Scientometrical Characteristics of Information Activities of Leading Scientists," by Z. M. Mulchenko and colleagues from the USSR.

I found these volumes to be of particular interest in enabling me to learn about the theoretical activities in information science underway in the Soviet Union and in Eastern Europe. The work of information scientists in this region is not generally well publicized in the United States, and yet there are a number of groups doing research of a fundamental and conceptual nature whose work is worthy of study and discussion. Accordingly, I would recommend these volumes as a significant guide to theoretical work in information science in the Soviet Union and its neighboring countries. I particularly point to the paper by Chernyi on integrated information systems which has an excellent discussion of a system under development by VINITI to handle up to 3 million documents per year. The description of VINITI and its functions is an excellent summary of interest to anyone concerned with information services. On the other hand, the work of the Westerners who are included in these volumes is relatively well known in this country, and there are other more appropriate sources which might be used for access to it.

Some of the papers that were included were submitted originally in Russian, and yet their translations seemed to be surprisingly good and easy to read. However, every now and then an English word or phrase is used with a connotation which is rather strange in this country or which is simply not

appropriate in the context used. For example, in the preface of one of the volumes, Professor Mikhailov talks about the various disciplines on which informatics depends, such as psychology, linguistics, etc. One of the disciplines which he includes is "scientology," which of course has quite a different meaning from that which Mikhailov intended, namely, the general study of science or the philosophy of science.

Since these books cover the period 1969–75, a relatively wide span of time as this field goes, it is of interest to compare the subject matter of the papers included in the volumes for 1974 or 1975 with those of 1969. Many of the papers in FID 435, for example, explore the possibility of the development of an information science, discussing the scope and aims of the science. In FID 475 apparently this is taken for granted, and some of the more specific and detailed aspects of the development of information science are discussed.

I found not only the papers themselves valuable but I was particularly interested in reading the prefaces of the volumes, particularly that of FID 478 which, commenting on the papers included, provides insight into the thinking of the editor and presumably of his colleagues about the development of information science and the various approaches suggested.

Such prefatory discussion of the papers frequently proceeds in considerable technical depth, and I enjoyed following it. Occasionally it becomes political and the Soviet ideological point of view is contrasted with that of the Western countries. For example, in his paper J. Halkin from Belgium touches very briefly on the possibility of treating information as a commodity, a view which is not unusual in the United States and which has frequently been suggested by a number of investigators. Chernyi, however, in the preface, goes into great detail to indicate why information cannot be a commodity, quoting from Karl Marx in *Das Kapital.* He then suggests that if information really were a commodity it would be an "object of huckstering" and would "inevitably bring into the scientific information activities a commercial spirit which is utterly inacceptable."

In the discussion of another paper by A. Merta from Czechoslovakia which suggests that informal channels of scientific communication are quite important regardless of any formal system for information exchange which may be developed, Chernyi takes considerable issue with this point of view, calling it unjustified. He suggests that many contemporary scientists and engineers who are interested in Merta's point of view sometimes refer to a quotation from V. I. Lenin. Chernyi points out that these scientists actually misunderstand what Lenin meant. He discusses and comments on the relevant quotation from Lenin, indicating that "this [referenced] injunction by Lenin is of a methodological nature and it does not concern the structure or the essence of things and phenomena." I am interested to note that the Russians apparently also have their difficulties with the support of science. For example, Chernyi states that "Inadvertent—and utterly wrong—assertions of an unconditional primacy of informal channels of scientific communication over formal ones may

lead (if they have not already led) to a cut-down of allocations for publishing scientific and technical literature and thus may cause serious damage to the development of science" (FID 478, p. 6).

I should like to make a few concluding comments about FID 513 which is different from the other three. As the title indicates, it is a compilation of abstracts of papers on theoretical information science. According to the preface of this volume, an attempt was made "to cover the most well-known papers on information science and allied disciplines published during the last 15 years." Included in the volume are 311 papers and books in more than fifteen languages, in all cases with at least a bibliographic notation and in most cases with an abstract or annotation. The preface indicates that the "compilers do not claim their publication being comprehensive in coverage, although they have tried to achieve that." However, there is no indication of how they chose the papers to include in this particular volume nor any suggestion of how they tried to ensure complete coverage.

I would estimate that perhaps 40 percent of the papers included are either from the Soviet Union or from Eastern European countries and perhaps 30 percent are from the United States. It would appear that most of the major authors who have written in the field of information science are included in the compilation; however, at least in the case of the Western authors, many of the papers are already out of date, and more recent and more appropriate papers by these same authors might better have been included. On the other hand, I would expect that the references to the Soviet work would be relatively complete. This volume, therefore, should be an invaluable reference for papers produced in the Soviet Union in the field. I would suggest that anyone who is seriously interested in research on the fundamentals of information science or in learning what Soviet information scientists have been doing should refer to this volume.

In summary, these volumes can serve as a valuable resource for those of us in the Western countries interested in information science, and they are well worth the price of approximately $10 each.

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Library Planning and Decision-making Systems. By MORRIS HAMBURG, RICHARD C. CLELLAND, MICHAEL R. W. BOMMER, LEONARD E. RAMIST, and RONALD M. WHITFIELD. Cambridge, Mass.: M.I.T. Press, 1974. Pp. xvi + 274. $14.50. ISBN 0-262-08065-6.

The introduction to this volume opens with the following statement: "This book is the result of a research project to design and develop a model for a library statistical information system (or synonymously 'management information system') for university libraries and large public libraries. The purpose of the model is to provide an information system that constitutes a comprehensive and flexible framework for library administrators for rational planning and decision making concerning library operations and resources."

The investigation was funded by the U.S. Office of Education and carried out under the general direction of Professor Hamburg of the Wharton School of the University of Pennsylvania, working with a substantial number of research assistants. The title of the investigation, the objectives summarized above, and the reputation of the senior author suggest the prospect of a serious contribution to the management area of librarianship, where new approaches and techniques are widely recognized to be needed. The work is divided into 6 chapters, several appendices, and a bibliography.

The first chapter notes that the majority of current library measures are inputs, not outputs; that this is also true of library standards; that the library must compete with many other social needs and institutions for the available and possibly diminishing supply of dollars; and that, if the library is to compete effectively, it must develop better measures of its performance and its outputs. Few would take exception to these observations.

The second chapter then addresses "library objectives and overall performance measures." First, it is noted that one may wish to identify and measure a variety of end objectives of the library—for example, the proportion of user demands that are satisfied or the average time to get a given document to a user. It is argued, however, that for many purposes a concept of "document exposure hours" may be a more easily determined, general, and satisfactory measure of library performance. To this end, the authors have determined by questionnaire and observation, from a sample of users of the Free Library of Philadelphia, the number of hours that a library document is presumably used, on the average, by a borrower and by a reader in the library itself. From these data a multiplier is developed which, when applied to total recorded circulation, presumably reflects the aggregate number of document exposure hours in any given period for which recorded circulation data are available. It should be noted that the document exposure hours, given the method used, will be directly proportional to gross circulation, though each library would presumably need to ascertain its own multiplier by a prior study.

The authors then proceed to establish the cost of an exposure hour by taking (*a*) "current expenditures devoted entirely to current document exposure," to which are added (*b*) a collection cost based upon a depreciation allowance of 15 percent per year of initial aggregate costs plus processing, (*c*) space costs based upon a building-cost

depreciation allowance of 2 percent annually of the initial investment, and (*d*) the depreciation cost of furniture and equipment at 6.67 percent of initial cost annually. From these data it is then possible to calculate the current unit costs of an "exposure hour." It turned out to be $0.66 for the Philadelphia Free Library in 1970. This analysis appears to be the primary result of the original research in the report.

It is evident that this kind of index figure will be useful for management purposes, if there is some reasonable expectation that the aggregate costs of all library services can be logically attributed to such a unit of measurement. For multi-institutional analysis, one would also have to assume that the scopes of aggregate library services are similar and that the resource bases being made available to users are comparable. The last point may be especially important. The authors speculate upon the apparent variations in their exposure-hour costs for libraries serving different populations. It is not noted that a critical variable may be that of the extent of the resource base and its cost, rather than the size of the population served. Harvard's exposure-hour costs will surely exceed those of a medium-sized state university library, even if the aggregate number of exposure hours is the same, because the resource base is much more extensive. Librarians may also have some reservations about the logic of the rate and uniform method of cost depreciation used to determine collection costs.

Added to the analysis of cost per exposure hour is a brief treatment of the imputed social value of library service as reflected by exposure hours. This calculation is based on a cited assumption that "governmental investments are expected to exceed costs to the extent that the resources utilized would otherwise result in benefits which exceed costs in the private sector." Since returns on private sector investments are expected to range from 10 to 15 percent, it is argued that the benefits of governmental investments should exceed costs by such a rate. The authors assume a 12½ percent benefit over costs, and thus the imputed social value of a document exposure hour will be that unit cost multiplied by 1.125. These assumptions on imputed values seem to me to be extremely dubious. Even if one accepts the basic assumption about the rate of imputed value for government (or nonprofit) investments, the result would reflect the average social benefits of all such investments. As in the private sector, there will be some government investments in which the social benefits may be negative, and it seems extremely unlikely that the benefits of library services exactly match the "average" yield. Furthermore, the approach as described would seem to reward the inefficient by applying the same multiplier to the unit costs of the grossly inefficient library as to the extremely efficient one. The authors do not use this concept of imputed value further.

In chapter 3, the authors present an outline for using PPBS (Planning-Programming-Budgeting System) in libraries. This summary may be useful to some readers, although the basic techniques and many of the variables used have been described in a number of other papers.

In chapter 4, attention is directed to the use of models for decision-making purposes. This chapter is essentially a review of a substantial number of empirical studies in various aspects of library operation and literature use (to January 1972). The studies are used to suggest ways of arriving at alternative management choices—for example, centralization-decentralization, journal selection, duplication rates, and weeding and storage.

The fifth chapter outlines the data elements that might go into a management information system and the ways in which such data may be most easily collected and organized for effective use. The primary focus of this chapter is on the data required to support a PPBS decision-making procedure. The suggested data on costs, load measures, budgeting, etc. are, in general, familiar. The authors suggest that the library's information system should be organized to reflect four interrelated aspects of operations: data on the population to be served, data on library services and opera-

tions, use measurements, and external factors. The chapter concludes with a detailed outline for the calculation of document exposure and a rather elementary outline for the handling of fiscal data, including cost analysis.

The sixth and last chapter, entitled "Higher-Level Library Decision Making," is a very superficial summary of some of the recent studies and observations with respect to multilibrary systems and technology.

This study will not be of material assistance to the librarian who has followed with some care the general body of contemporary management literature and recent basic studies in the field of librarianship. However, for the student or the librarian who is not familiar with these areas, the work will serve as a very useful introduction and guide.

Herman H. Fussler, *Graduate Library School, University of Chicago*

A Benefit-Cost Analysis of Alternative Library Delivery Systems Dy TEH-WEI HU, BERNARD H. BOOMS, and LYNNE WARFIELD KALTREIDER. Contributions in Librarianship and Information Science, no. 13. Westport, Conn.: Greenwood Press, 1975. Pp. xv + 286. $12.50. ISBN 0-8371-7528-3.

The three subject headings assigned this book and recorded in the Library of Congress Cataloging in Publication Data on the verso of the title page do not do justice to its contents. The book is certainly about "bookmobiles," "direct delivery of books," *and* "cost effectiveness"; but, even more, it is a treatise on decision making and research methodologies applied to libraries. As the authors state in the last chapter, "The objective of this study was to evaluate two alternative library delivery systems—bookmobiles and books-by-mail, or MOD—mail-order delivery—in order to provide feedback to librarians faced with making decisions about these two systems. While this study focused on these two alternative delivery systems in Pennsylvania, *the analytical approach used—benefit-cost analysis—should be applicable and transferable to these as well as other library programs elsewhere*" (italics added).

The study is worth some detailed description, for it is of recent origin (1972), covering all types of geographical areas in Pennsylvania: urban, rural, suburban, and small town. Two different procedures were employed in conducting mail surveys of users of bookmobiles and MOD over a two-week period. Nonuser questionnaires were also distributed in the same areas. Statistical cost analysis of the two methods of book delivery was carefully performed, and the cost functions (average and total) were calculated. Regression analyses were run, using total circulation as the output variable. Private and social benefits perceived by users and nonusers were measured as having both consumption and investment value. Bookmobile and MOD users of all categories were included among the survey respondents. The value of time of three main categories of users—housewives, students, and employed persons—was considered separately for the computation of a weighted wage rate, in order to compare time saved (value of benefit) with costs of services. Amount of money users would be willing to pay per year and per book was also studied, as a kind of monetary benefit measure. Aggregate benefits were tabulated, and regression analysis of the benefit measurements was performed. Average benefit/cost ratios for each method of delivery were compared, with several caveats stated because of the estimated missing cost data.

The findings of this study showed that neither bookmobiles nor the MOD programs were cost efficient. Bookmobiles surveyed had ratios of 0.60 (benefits/operating costs) and 0.47 (benefits/total costs), while the ratios for the MOD program were 0.78 and 0.68, respectively. The ratios for both programs were less than 1. This finding, according to the authors, who are all economists, "does not mean that both programs should be automatically eliminated but ratios of less than one do have some implications." Four pages of "cautions and policy implications" end the book. Ways to improve

efficiency, how to reach the intended users of the service and to institute user changes, and several other decision points are discussed.

If the readership of this book were limited to those public librarians interested in bookmobiles and MOD, there would be a great loss of information transfer, because the most important contribution of the book is neither the findings of the well-executed study it reports nor the excellent review of literature on library delivery systems. It is the careful discussion, explanation, and analysis of several concepts well known to economists of the public sector but virtually unknown to and rarely researched by librarians. The index displays several of these concepts:

Aggregate benefits (of a library program)
Benefit-cost ratios
Cost analysis
Cost function(s)
  average
  complex
  specification of
  total
Cost model

Depreciation (of book stock)
Economies of scale
Marginal costs
Monetary benefits
Objectives
  consumers' view of
  librarians' view of
Output, measure of regression
  analysis of benefit measurements
  user/nonuser studies

The book, then, should have a greater readership than is implied by the topic researched. It could, for example, easily serve as a model for library science classes in research methods. The research design, survey instruments, and data collection and analysis are all exemplary. The style of writing borders on dissertationese, but it serves well the purpose of explaining such complicated statistical techniques as regression analysis. Chapters 3 and 6 alone are worth the price of the book, for they make a valuable contribution to the literature of librarianship on the subject of evaluation and costs. The limitations of the benefit/cost analysis technique and the qualifications placed on the findings of the study are also well written, again exemplary of what our literature usually does not, but should, include.

To find the "best way," the economists leave us with these thoughts: with limited resources, maximize user satisfaction; or, given a certain amount (level) of library service, minimize costs. It has been their intention to convey some approaches that librarians might consider in making such decisions. They have succeeded admirably. With their guidance, it is the hope of all of us that we will succeed too.

Pauline A. Atherton, *Syracuse University*

Automation in Libraries By R. T. KIMBER 2d ed. International Series of Monographs in Library and Information Science, vol. 10. Oxford and New York: Pergamon Press, 1974. Pp. ix + 240. $15.00. ISBN 0-08-017969-X.

Most traditional works on library automation emphasize technical services to the virtual exclusion of public services. The second edition of this British work is no exception. The first 4 chapters are devoted to generalities: libraries and automation, reasons for automating, planning an automated system, and implementing an automated system. The author has deliberately left out an introductory chapter on computers, maintaining that it is no longer realistic for every textbook on computer applications to treat the basic principles of computers. Whether such material would have been less useful than some of the contents of the aforementioned chapters is, however, debatable. For example, on page 4 one finds the following paragraph under the heading "Change and Productivity":

In a primitive society life changes but little, and an effective balance is maintained between the size of a human population in a given locality and the ability of that locality to support it. Human fertility tends to increase the population, disease tends to reduce it. If more food is required, farmers and hunters must work harder. If more land is required for cultivation, then in all likelihood more land exists for the taking, for the wresting from a neighbouring people, or perhaps for the cost of clearing it of scrub or forest.

Such perspective-building pap may cause many readers to long for an introduction to computer principles.

Later on, there is a good chapter on bibliographic-record structures which provides a readable account of MARC (Machine Readable Catalog) records and an appendix enumerating the plethora of tags and the contents of the fields associated with them. Other chapters treat accounting systems, serials, circulation control, acquisitions, and catalogs and bibliographies. These chapters are well-written overviews with suitable illustrations, including black-and-white photographs in addition to the inevitable flow diagrams. The use of FORTRAN (Formula Translator) statement cards to illustrate serials input data on pages 64 and 65 may be confusing to neophytes but is probably realistic, in that keypunch operators will often use whatever card stock comes to hand.

Numerous references to the primary literature are given, American as well as British and Continental; but some seem dated for a work bearing a 1974 copyright. Optical Character Recognition (OCR) is discussed, and substantial attention is paid to COM (Computer Output Microfilm); however, there is nothing on minicomputers or bar coding. Short shrift is also given to computer software. Programming Language/One (PL/I) is correctly identified as a language which combines the features of FORTRAN and COBOL (Common Business-Oriented Language), but there is no mention of its powerful character-manipulation functions, which make it unique among the major programming languages. This seems especially strange and regrettable, considering the impact PL/I has had in recent years, both in libraries and information centers and in progressive library schools which teach computer programming.

Perhaps the most striking thing about this book is its lack of emphasis on user-oriented services. The use of MARC tapes for SDI (Selective Dissemination of Information) is mentioned in passing, but information retrieval and dissemination are for the most part ignored. As an example, OCLC (the Ohio College Library Center) and BALLOTS (Bibliographic Automation of Large Library Operations Using Time-Sharing) receive attention, but SPIRES (Stanford Public Information Retrieval System) is omitted, presumably reflecting the author's British background and greater interest in cataloging.

In summary, *Automation in Libraries* is a generally well-written, but very cautious and traditional, book which focuses on technical services and the general aspects of library automation.

Charles H. Davis, *University of Michigan*

Educating the Library User. Edited by JOHN LUBANS, JR New York: R. R. Bowker Co., 1974. Pp. xiv+435. $14.50. ISBN 0-8352-0674-2.

In the words of the editor, this volume is "a collection . . . on the problems, hopes, and techniques of intructing library users and nonusers . . . in the effective use of libraries and their resources" (p. xi). With some exceptions to be noted, this reviewer has doubts as to its usefulness.

There are three principal criticisms of the volume. First of all, there is in the book much too much redundancy and fatuous superficiality, which tend to bury the nuggets—which are there—under mounds of trivia. The collection should have had extensive and severe editing to about ¼ of its present length. I am reminded of the

famous review by Ambrose Bierce of a tome of some length. His total review was, "The covers of this book are too far apart."

Second, many of the essays describe library-instruction efforts that have not been clearly thought through or tested or evaluated. They are at the level, as Ralph Shaw used to say, of "how we do it good in our shop."

The third criticism is perhaps unfair, for it criticizes the book for what it does not do. However, I take this liberty in the belief that identification of problems may at this stage be more important than their solution, for it is the problems that a profession deems important that define the profession. I am referring to the question of "nonuse," which may be illustrated best by the remark of Professor Philip Kuehl that "the library does a very good job of satisfying the needs of its users. But I don't think that the library does a very good job in satisfying the needs of its market" (P. G. Kuehl, "Marketing Viewpoints for User Needs Studies," in *Economics of Information Dissemination*, ed. R. S. Taylor [Syracuse, N.Y.: Syracuse University School of Library Science, 1973], p. 66).

In this context, it is not those who come in the library voluntarily but, rather, those who do not come in the building or do so only as required (for reserve reading, etc.) who need to be paid attention. Most library instruction seems to try to serve both of these groups with the same programs, and this makes for a sort of schizoid approach. The first group—the users—can and are helped by good point-of-need instruction, self-learning modules, good graphics, and helpful reference service. The second group—the nonusers, by far the larger group—need something more. If they are to be served—and this decision is a local one—then the librarian must get out of the building and go where they are; ascertain what their problems are; and, if they are information related, then attempt to solve them. Note the distinction here between the library and the librarian, a very critical one if the profession is to be truly responsive to people's needs. This book does not concern itself with this fundamental professional question.

There are some very good essays in the book. Arthur Young, in an introductory essay, has written an excellent review of research in this area (pp. 1–15). Anything written on the subject in the future should start from his essay. There are good descriptions of well-planned programs at Earlham College (pp. 145–62) and at Wabash College (pp. 350–62). There are also articles on "point-of-use instruction" (pp. 269–78), on computer-assisted instruction (pp. 350–63), and on other mediated forms of instruction; but all contain little or no evaluation.

The best and most thoughtful essay is Maurice B. Line's "Case for Information Officers" (pp. 383–91). As he remarks, "The horse does not have to be brought to the water; water can be taken to the horse" (p. 387). Unless the profession ceases to be only keepers of the water hole and starts moving water to places where it is useful, it will eventually discover that the horses have been stolen.

Robert S. Taylor, *Syracuse University*

Functions and Objects of Author and Title Cataloguing: A Contribution to Cataloguing Theory. By Á. DOMANOVSZKY Budapest: Akadémiai Kiadó, 1974. Pp. 173. $10.00.

Dr. Domanovszky's approach to all aspects of cataloging is deeply considered and analytical and clearly comes from the European, rather than the Anglo-American, tradition. The results of his thinking in at least one of these areas (that of author/title cataloging) are now to be found in this book. This is no book for either the dilettante or the novice. Domanovszky studies his topic with high seriousness and, indeed, high ambition. "Cataloguing . . . cannot do without an elaborate theoretical basis," he states on page 11; and his book is nothing less than an attempt to supply such a theory. His analysis of the subject is painstaking and logical, seeking to apply to

library science the same kinds of criteria that govern other technological disciplines. Domanovszky points out that ". . . in engineering it would not occur to anyone to set out to elaborate instructions for the large scale manufacturing of a machine of similar intricacy as the catalog without having an adequate theoretical basis to rely on" (p. 17). Library science must be one of the few disciplines in which the importance of theory is something that needs constant reiteration.

Domanovszky is careful to define the exact scope and nature of his study. It is concerned with what he calls "standard cataloguing," defined as the cataloging of books and booklike materials, as applied to what he calls "autonomous objects," defined as those library materials which are individually cataloged under headings derived from their own distinguishing marks. He further excludes from consideration questions of the form of heading in author/title catalogs and of the description of library materials. It may be questioned whether a work devoted to the topic of the choice of main entry for books is one that is wholly in tune with the spirit of the times—times, after all, when the main entry is regarded as a quaint irrelevance by many and the main focus of discussion is in the area of the cataloging of all library materials. In what I found to be the most confusing section of this book, Domanovszky appears to assert the continuing importance of the main entry, while referring the reader to a later section in which he says that the question of kinds of entry is irrelevant to his present study and belongs to a "later chapter of cataloguing theory" (p. 72). To me, at least, the question of the main entry and that of the choice of heading cannot be divorced; and this problem did not make the reading of an already difficult book any easier.

Domanovszky analyzes the meaning of the term "function" in relation to author/title cataloging and demonstrates that the confusion that exists over the term produces confusion about the concept itself. He takes as a starting point the International Conference on Cataloging Principles formulation of the functions of the catalog. These are to allow access to information (*a*) about a particular book, (*b*) about all the editions of a work, and (*c*) about all the works of each author. Cataloging thus exists at the three levels of (*a*) the publication, (*b*) the bibliographic unit, and (*c*) the literary unit. Domanovszky demonstrates that these levels are often muddled in cataloging codes and that this muddle is extended even to the terminology. For example, in the Anglo-American cataloging rules (1967), the terms "book," "work," and "publication" are used in a confusing and unhelpful manner. In the main part of his book, Domanovszky analyzes these functions very carefully and disentangles them one from the other. He then goes on to elaborate his own definitions of these functions in great detail. His definitions are summarized in an appendix (pp. 171–72).

In this space one can give no more than an idea of what is an extraordinarily complex book. Domanovszky reminds one of S. R. Ranganathan in his ability to think through to the basics of a subject, in the complexity and originality of his thought, and in his willingness to redefine old terms and to invent new terms when he feels that the existing terminology is inadequate. Like Ranganathan, he is not easy reading, but he has given us a book which will stimulate thinking among those who are serious about the subject of cataloging.

Michael Gorman, *The British Library*

A Survey of Existing Systems and Current Proposals for the Cataloguing and Description of Non-Book Materials Collected by Libraries, with Preliminary Suggestions for Their International Co-Ordination. By C. P. Ravilious COM.75/WS/5. Paris: UNESCO, 1975. Pp. 132. (Paper.)

After the appearance of the International Standard Bibliographic Description for Monographs, ISBD(M), preparations for an ISBD for nonbook materials (NBM) are

now underway; and the International Federation of Library Associations (IFLA) has a contract with UNESCO to undertake a survey of existing systems of bibliographic control of nonbook materials. The findings of the survey will be utilized in the development of a draft ISBD(NBM). Christopher Ravilious, the director of the survey, presents a review of current developments throughout the world in the area of nonbook-materials cataloging and a critical analysis of the problems posed. Part of the work summarizes the policies and programs aimed at achieving bibliographic control of nonbook materials in the twenty-four national and five international bodies included in the survey. These summary chapters and the one entitled "ISBD(NBM)-Readiness," which chronicles the degree of receptivity to the idea of an ISBD(NBM), provide essential background information on the state of the art of non-book-materials cataloging. More crucial in the actual drafting of the ISBD(NBM), however, is the consideration of existing codes and standards of non-book-materials cataloging; and the analysis and evaluation of twenty-four of these constitute over ½ of the study. It is this part which is of the greatest interest, in terms of both the thoughtful and systematic articulation of the problems which nonbook materials present and the comparison and analysis of both familiar and less well-known codes.

The standards for international bibliographic description already developed for books and serials tacitly assume that there exists a commonality among items within a medium sufficient to allow a single mode of description. The category of nonbook materials, however, includes such a wide range of materials that we have to ask if there is a commonality among media which could justify a standard description. In addition, if compatibility with the existing ISBD(M) and book codes is desired, the various nonbook materials must also share with the book characteristics which require similar description. It is therefore especially appropriate that Ravilious, in analyzing nonbook codes, proceeds systematically through the ISBD(M). A consideration of the component parts of bibliographic description and the ways in which the different nonbook codes have dealt with different media alerts us to those characteristics of nonbook materials which are hardest to accommodate within a bibliographic standard. Differences in the mode of publication leave us without a convenient primary source of bibliographic information such as we have, for example, in the title page. Such a problem, however, is relatively minor when compared with those resulting from decisions to provide new bibliographic elements for certain nonbook materials. Ravilious implies that the medium designator and separate credits to acknowledge the contributors of those not eligible for authorship status are not requirements imposed by intrinsic qualities of the medium but, rather, by our attitudes toward them. In an extensive and well-argued commentary, Ravilious, like Lubetzky before him, points out that we have not yet come to terms with the categories of the performer, the film director, and the conductor as partial creators. He argues that all statements related to overall intellectual and artistic responsibility should be grouped together and placed in the bibliographic area designated for statements of authorship. Similarly, he suggests that the medium designator be included with other statements of physical description. These views are by no means new, but Ravilious adds to theory the practical consideration of compatibility with the existing ISBD(M).

The critical literature on nonbook materials is limited, and this is the first extensive discussion of nonbook materials which views the problems of bibliographic description common to all nonbook materials, rather than discussing each medium separately. The work is all the more important in view of the diversity of media and the diversity of codes; and for this reason it must be regretted that Ravilious's excellent analysis, with the recommendations it contains, is not more widely available.

Carolyn O. Frost, *University of Chicago*

The Changing Concepts of Reference Service. By SUSEELA KUMAR Sarada Ranganathan Endowment for Library Science Series, no. 7. Delhi: Vikas Publishing House, 1974. Pp. 327. $12.00. ISBN 0-7069-0302-1. Available from International Scholarly Book Services, P. O. Box 4347, Portland, Oregon 97208.

This book is based on the seventh series of Sarada Ranganathan lectures, which Suseela Kumar presented in Bangalore in 1971. In her introductory lecture, the author states that her intention is to "attempt to highlight a few of the *changing concepts* of Reference Service" (p. 28) and to "reaffirm that the *essence* of librarianship, as enumerated in the FIVE LAWS of Dr. Ranganathan, *is* Reference Service" (p. 30). In fact she does neither. She does not, as she suggests, discover in the course of an examination of current reference practice any substantial support for S. R. Ranganathan's theory that the end of all librarianship is effective reference service. In fact, she unquestioningly assumes the validity of the theory at the outset. Nor does she, as she might fruitfully have done upon making this initial assumption, take Ranganathan's theoretical picture of librarianship as a framework around which to organize an investigation of current reference practice and the impact of changing theory and practice in all areas of librarianship on the provision of reference service. Rather, she apparently interprets Ranganathan's contention that reference service is the core of all library work as a virtual identification of reference service and librarianship. And this identification allows her to roam over the whole realm of librarianship, convinced that anything she touches on will be relevant to her stated topic.

The resulting book is diffuse and disorganized, lacking the control that a narrower definition of reference service could perhaps have provided. The author fluctuates between giving detailed practical advice concerning specific tools and procedures and describing in very general terms the broad social context of present-day librarianship, the intellectual and social trends which necessitate increasingly intensive reference service, and all the other techniques of modern librarianship which are means to the achievement of such service. However, she never clearly and rigorously connects the general with the specific. She does not discuss how the needs arising from the social and intellectual climate are translated into specific objectives to be met by particular techniques and methods of reference service. In other words, her title notwithstanding, Kumar ignores the conceptual frameworks which link overall function with immediate objectives and practices.

Because of the lack of a disciplining theme, Kumar's choice and arrangement of material seem arbitrary. The book is divided into 3 sections. The first contains the texts of a "welcome address" by A. Neelameghan and an "inaugural address" by Malcolm S. Adiseshiah, director of the Madras Institute of Development Studies, who presented a brief overview of the library system of India and made no allusion at all to reference service. The second section comprises the texts of Kumar's lectures, and the third contains case studies of reference situations.

The core of the book is the second section, which contains chapters entitled "Reference Service as a Link," "Reference Service in the Modern World," "Range of Reference Service," "Evolution of Reference Tools," "Reference Service and the Need for Library Cooperation," "Education and Training for Reference Service," and "Reference Service and National Development." All these chapters are characterized by careless scholarship, inconsistencies in approach, superficial descriptions, unsupported conclusions, and a strong tendency to wander from the stated topic.

Chapter F, "Range of Reference Service," is a case in point. Kumar begins the chapter with a brief discussion of various categories of library users. Then, in a very cursory manner and with no attempt to relate her discussion to the user groups she has just described, she touches, for virtually the only time in the course of her lectures, on some of the specific procedures and attitudes involved in the provision of reference

service. She follows this with a section, inexplicably entitled "Reference Service—the Heart of Library Service," which consists of 7 examples of publications (the bibliographical descriptions of which are incomplete and sometimes inaccurate) difficult to catalog or classify. This section does not logically fit into the chapter, and its relevance to reference service (unless reference service is equated with librarianship) is unclear. Kumar attempts to tie classification explicitly to reference service only at the conclusion of the chapter, by simply asserting that intensive reference service will counteract the weaknesses inherent in the classification system.

The book's final section consists of 8 chapters containing "case studies," which are simply descriptions of actual reference problems and the sources used to solve them. The cases do not illustrate questions of reference policy or problems concerning the personal interaction of librarian and patron. They are presented without comment on their relevance to any ideas expressed in the lectures, and they certainly do not serve the stated purpose of the book by showing how a particular concept of reference service may be applied to a specific situation.

Kumar includes a "selected bibliography" of 117 items. One wonders just how many of these she actually drew on to produce a book so lacking in substance.

There are 2 indexes, one to the lectures and the other to the cases—both of which are unnecessarily elaborate. The second contains such enigmatic and tantalizing entries as "location of church," "muzzle velocity of revolver," "revolutions of tower restaurant," and "smokeless air." Given the nature and brevity of the cases, it is unlikely that a reader would wish to use this index other than for the intrinsic entertainment it provides.

The book is further marred by many typographical errors, which only serve to increase the irritation of a reader already frustrated by the loose thinking, superficiality, and lack of careful scholarship which are apparent throughout.

Marcia H. Chappell, *University of Chicago*

Sources, Organization, Utilization of International Documentation. Proceedings of the International Symposium on the Documentation of the United Nations and Other Intergovernmental Organizations, Geneva, 21–23 August 1972. FID 506. The Hague: International Federation for Documentation, 1974. Pp. 586 (Paper.)

The Geneva symposium, which was organized by the United Nations Institute for Training and Research (UNITAR) at the initiative of the Association of International Libraries (AIL) and with the support of the International Federation of Library Associations (IFLA) and the International Federation for Documentation (FID), brought together 259 participants from fifty-one countries, representing all the groups of users professionally interested in the documentation of international organizations. The meeting was held under the auspices of the United Nations Office in Geneva and also had the cooperation of the World Health Organization. The present volume comprises nearly all the documents and papers presented at the symposium. It includes 4 chapters: "Introductory Reports" (pp. 15–44), the "Symposium Report and Recommendations" (pp. 45–84), "Panels' Reports" (pp. 85–193), and "Working Papers" (pp. 195–560). Appended is a list of participants, an author index, and a documents checklist. Most of the working papers were delivered in English, a few in French. The "Symposium Report and Recommendations" and the "Panels' Reports" are printed in both English and French. The "Panels' Reports" and the "Working Papers" are grouped according to the topics of the three panels: (1) "Sources of International Documentation" (11 working papers), (2) "Acquisition and Organization of International Documentation" (20 working papers), and (3) "Utilization of International Documentation" (20 working papers).

The problem of organization and utilization of international documentation is of

primary importance for every research worker in the field. It is excellently elucidated in the introductory report on "Specialization and Integration: Some Aspects of the Documentation of International Organizations" (pp. 20–35), by Dr. Gyorgy Rózsa, the chief librarian of the United Nations Office in Geneva. He correctly points out that "the division, diversification and ramification of specialized literature," which is a consequence of the intensified specialization and "proliferation of all branches of human activity" (p. 20), necessitates a division of labor and that the phenomena of this division and of specialization appear also in the area of international relations. This point is further stressed by reference to the many changes in the political geography of the world after the Second World War, the emergence of whole groups of new states, and the increased number of international organizations and their activities. Of the 1,978 international organizations founded since the Congress of Vienna, the greatest number (319) were established in the period 1950–54. There are now some 2,500 international organizations in existence.

The effect of this growth rate on the problem of documentation is further evidenced by the almost incredible increase of general publications and, with regard to the documentation of individual international organizations, by the fact that, for example, the growth of documents produced internally at United Nations headquarters increased from 400 million page units in 1964 to 600 million page units in 1967, an increase of 50 percent for that period. If one is aware of the fact that this figure of 600 million pages represents only mimeographed and offset production at the headquarters—no printed items—and that it does not include the output of the Geneva Office and the specialized agencies, the whole problem of international documentation is put into its proper perspective. It should be added that, from the institutional viewpoint, Rózsa regards only the documentation services and libraries of international organizations as "international documentation." The conclusions he draws from the phenomenon of specialization and proliferation emphasize the necessity of collaboration between the documentation services of the individual international organizations, such as, for example, the notion of "a network of documentation services concerned with international affairs" or the creation of "a sort of clearing house" (p. 25) for the reproduction, circulation, and exchange of official publications.

The whole complexity of the problems of control and coordination is reflected in the 51 working papers of the symposium, which cannot be discussed in detail in this review. They deal with all aspects of the creation, retrieval, preservation, production, availability, and distribution of international documents; with the utilization of centralized cataloging and indexing; and with computerized services. Of paramount interest is the symposium report by the general *rapporteur*, Franco A. Casadio, director of the Italian Society for International Relations, which lists no less than 64 symposium recommendations of major interest to member governments and their national administrations; to intergovernmental organizations; to the symposium organizers; to libraries and documentation centers; and to users in general (pp. 47–84). One conclusion seems especially notable: "The participants were of the opinion that there are areas—such as science and technology—in which it has proved possible for a well organized information system, based on previously defined information policy, to take increasingly firm root and to function efficiently. On the other hand, it was noted that international organizations have not so far adopted any consistent information policy, thus ruling out any possibility of establishing and operating an information system" (p. 48).

The proceedings collected in this volume will, for a long time to come, remain a basic informative source on all problems related to international documentation.

Kurt Schwerin, *Northwestern University School of Law*

Acquisitions from the Third World. Papers of the Ligue des Bibliothèques Européennes de Recherche Seminar, 17–19 September 1973. Edited by D. A. CLARKE. London: Mansell, 1975. Pp. viii + 276. $15.00. ISBN 0-7201-0453-X. Distributed in North America by International Scholarly Book Services, P. O. Box 4347, Portland, Oregon 97208.

This volume begins with a brief introduction by the editor, who is librarian of the British Library of Political and Economic Science, London, and concludes (there is no index) with a section entitled "Recommendations of the Seminar" The 16 papers that make up the rest of it are "South Asia: Book Production, Bibliographical Control and Acquisition Problems," by M. H. Rogers, librarian, Institute of Development Studies, University of Sussex; "Les Livres en Asie Sud-Est: Leur production, leur information bibliographique, leur acquisition," by A. Lévy of the Bibliothèque, Centre de Documentation et de Recherches sur l'Asie du Sud-Est et le Monde Insulindien, Paris; "Book Acquisition from the Middle East," by Derek Hopwood, Middle Eastern bibliographer, St. Anthony's College, Oxford; "Acquisition Problems of Africa South of the Sahara," by Ernst Kohl, Bayerische Staatsbibliothek, Munich; "Publishing in Africa in the Seventies: Problems and Prospects," by Hans M. Zell, editor, University of Ife Press; "A Comprehensive Loan Collection of Latin American Material," by Bernard Naylor, librarian/bibliographer, Institute of Latin American Studies, University of London; "The Farmington Plan and the Foreign Acquisitions Programmes of American Research Libraries," by Philip J. McNiff, director, Boston Public Library; "The Public Law 480 Program and the National Program for Acquisitions and Cataloging of the Library of Congress," by William S. Dix, director of libraries, Princeton University; "SALALM: Thoughts on the Birth and Development of an Organization," by Glen F. Read, Jr., Latin American librarian, Cornell University; "Co-operative Acquisitions from the Third World: A Discussion," by M. H. Rogers, librarian, Institute of Development Studies, University of Sussex; "The Scandia Plant," by Esko Hakli, Helsinki University Library; "The Co-operative Acquisition Programme of German Libraries," by Dieter Oertel, Deutsche Forschungsgemeinschaft, Bonn; "Schemes in the Federal Republic of West Germany for Centralized Acquisition of the So-called 'Grey Literature,' " by Ulrich Gehrke, Institut für Allgemeine Uberseeforschung, Hamburg; "The British Library and Third World Publications," by D. J. Urquhart, director general, British Library Lending Division, Boston Spa; "The Library of the School of Oriental and African Studies," by B. C. Bloomfield, librarian, School of Oriental and African Studies, University of London; and "Co-operative Acquisitions from One Third World Country: The Australian Experience in Indonesia," by W. G. Miller, formerly of the National Library of Australia, Canberra.

The authors are well informed; and their contributions justify the editor's hope "that the detail of bibliographies, sources of supply, etc., as well as the broad accounts of experience which they contain, may be of practical use to scholars and libraries concerned with these areas" (p. viii). This is not to say that one can rely upon statements regarding bibliographies and sources of supply that were accurate more than two years ago when these papers were written; one of the major difficulties in acquisition from the Third World is that promising current bibliographies are discontinued or fail to remain current, and good dealers go out of business.

The accounts of existing cooperative schemes appear to be accurate and, in their appraisal of failures and successes, generally realistic. Looking ahead, the editor reports that, in accordance with recommendations of the seminar, the Executive Board of LIBER (Ligue des Bibliothèques Européennes de Recherche) has established a working party with subgroups assigned responsibility for particular regions. The objective is ambitious—"To ensure that there is at least one copy of every worthwhile

publication [from the Third World] in a library in Europe prepared to lend it to any other European library" (p. 275), and a footnote adds that "the working party will need to define in precise terms the types of material included in the term 'worthwhile.' " The establishment of field offices is suggested, and "the advisability of entering into arrangements with the research libraries of the United States and in particular with the Library of Congress with a view to sharing the costs of field offices, the acquisition of publications and the production of bibliographical information" (p. 276).

It would take an incorrigible optimist to predict success; but anyone who opposes making the attempt ought to offer an alternative more promising than inaction. There is a need for improved access to publications of the Third World; it seems evident that field offices or representatives in Third World countries are essential for collecting these publications; and there is no prospect that individual libraries can solve the problem on their own. An ambitious cooperative plan may fail, but anything less seems sure to do so.

Edwin E. Williams, *Harvard University*

Standards for Library Services: An International Survey. By F. N. WITHERS Documentation, Libraries, and Archives Studies and Research, no. 6. Paris: UNESCO Press, 1974. Pp. 421. $12.95 (paper). ISBN 92-3-101177-4. Distributed in the United States by Unipub.

In 1970, an earlier version of this survey was issued by UNESCO in reproduced typescript with unjustified margins, the result of two years' work by F. N. Withers on a contract by UNESCO with the International Federation of Library Associations (IFLA). The work was very well received, and it was decided to revise and extend it to cover a wider selection of countries. The present volume, in a more traditional, printed book format, should receive the wider distribution and attention it deserves (it has also been issued in French and Spanish editions).

Withers has done a remarkable job. The difficulties can be imagined: the variety of forms in which standards are issued (sometimes directly compiled as formal standards, sometimes only implied in government directives, legislation, reports on planning, or other documents); the number of countries for which standards do not exist in written form but have had to be reported to the surveyor in response to his request; the inconsistencies among countries in items covered or criteria proposed; the problems of language. None of these difficulties seems to have flustered Withers. "Anything, whether it is labelled 'standards recommended for . . . libraries' or not, has been treated as relevant" (p. 16); yet the narrative reads as smoothly and easily as if it had been a simple matter. There are gaps, of course, and noncomparable data, but these are reflections of reality; they are not the fault of the author of this useful compilation.

The volume is organized into sections by type of library—national, academic, special, public, and school—in which the main purpose is to quote verbatim whatever statements of standards could be found, country by country. There is a short final section which attempts to draw up, based upon principles derived from the 400 pages of closely packed information that went before, some model standards that can be used by the developing countries or by any countries, for that matter, which have not formulated library standards. It is Withers's assumption that national planning should be the ultimate goal, and his aim is to encourage those who have not yet done so "to formalize their library desiderata . . . as a contribution to . . . national planning . . ." (p. 18).

The section dealing with public libraries is the most detailed; there are enough sources of standards in this area to require some summary tables and some interpretive narrative, in addition to the reproduction of the standards as such. For that reason, I found this section the most interesting and useful as a support tool for comparative study. This section also provides considerable incidental information; in his presentation of the standards for each country, Withers has frequently included a succinct and informative encyclopedic entry of the history of library development and the factors that have influenced its direction. This is not the definitive source for such information about the several countries, of course, nor was it meant to be; but it does provide a useful framework within which to interpret the accompanying standards.

Withers seems to be more concerned about the frequent lack of quantitative standards than I am. He repeatedly remarks, seemingly with regret, on their absence from the standards he has received. However, when at the end he comes himself to suggest model standards, he rarely includes quantitative criteria—I think quite rightly. As he suggests, "The detailed requirements can only be worked out on the spot by persons with a knowledge of local conditions" (p. 408). It may be desirable to establish the minimum which it is worthwhile to provide, wherever that is possible, as the new IFLA public-library standards attempt to do (International Federation of Library Associations, Section of Public Libraries, *Standards for Public Libraries* [Pullach bei München: Verlag Dokumentation, 1973]); but nothing is more likely than absolute figures to be unrealistically advanced for some countries, a deterrent to progress in others, and an outmoded measure for all in a very short time. The statement of general principles is far more useful over the long pull.

Withers has produced a useful reference tool, a handy source of information, and some provocative guidelines in as readable a form as is possible for such a document. It is a recommended addition to the reference collection and to the reading lists of comparative librarianship courses anywhere in the world.

Lester Asheim, *University of North Carolina*

Progress in Urban Librarianship: A Seminar on Community Information Needs and the Designing of Library Education Programs to Meet These Needs Papers Presented at the Seminar Held at the University of Wisconsin—Milwaukee, February 21–22, 1974 Compiled and edited by THEODORE SAMORE Library Science Studies, no. 4. Milwaukee: School of Library Science, University of Wisconsin—Milwaukee. Pp. 128. (Paper.) Available on request.

To share insights and experiences on library education for service to the urban poor, the School of Library Science at the University of Wisconsin—Milwaukee brought together about eighty library educators; librarians experienced in inner-city work; and faculty, students, and alumni from three experimental programs conducted at Columbia, Case Western Reserve, and the University of Wisconsin—Milwaukee. The two-day seminar was held in Milwaukee in February 1974, under a grant from the U.S. Office of Education.

Based on the assumption that, "in order to meet community information needs, we must know what kinds of information the community needs, [and that] this knowledge will determine what skills and techniques should be taught to librarians who will serve the community," the seminar addressed itself to three goals: "to provide information on: 1) techniques to determine information needs of urban communities, 2) programs for training librarians for urban library service, and 3) developing model training programs" (p. 106)—ambitious goals for a two-day seminar, even if one were willing to settle for a superficial level of information.

The four "behavioral objectives" (p. 106) anticipated by the seminar's planners

were even more optimistic. Did they really believe that participants would (1) "become familiar with techniques for determining the informational, cultural, and educational needs of urban area residents"; (2) "receive information on past and current programs for training librarians (with minority backgrounds) for urban library service"; (3) "examine the significance of interpersonal and intercultural communication in providing information and how it relates to library training and library services"; and (4) "have the opportunity to help design a model graduate level program for training librarians to serve the urban community"?

More realistically, the Milwaukee seminar brought together a group of people knowledgeable about education for inner-city public librarianship and attempted to synthesize and evaluate what three experimental programs have taught us about how best to develop librarians capable of serving the urban poor. This more modest goal is certainly itself ambitious and important enough.

What have we learned at Columbia, at Case Western Reserve, at Wisconsin—Milwaukee, and at the other American library schools where such specialized curricula have been attempted? One is reminded of the lines from Omar Khayyam:

> Myself when young did eagerly frequent
> Doctor and Saint, and heard great argument
> About it and about: but evermore
> Came out, by the same door as in I went.

Everyone at the seminar agreed that personal qualities of empathy, warmth, flexibility, respect, and desire to serve are fundamental to successful library service to inner-city people. To express it in Douglas Zweizig's technical language, we need "interpersonal/intercultural communication" (p. 3); or, as Lotsee Smith from the University of New Mexico said, "The right kind of person is our most critical requirement in meeting community needs" (p. 36).

Most experimental programs have assumed that the "right people" are most likely to be found among people who belong to minority ethnic/racial groups and who come themselves from the inner city. The seminar participants did acknowledge that there is ample evidence that not everyone with the "right" background—social, economic, ethnic—is endowed with the "right" personality traits and that our current screening methods have proven to be not very precise. In the opinion of this reviewer, however, participants at the seminar tended to oversimplify the thorny problems of identifying and recruiting the "right" people.

No one questioned the assumption that most of those who grow up in poverty will wish to remain in the ghetto or that they will retain the lower-class values and life styles of their parents. The possibility was overlooked that not all members of a minority group may share the values and attitudes of the urban poor—that, in fact, the majority of those from a minority group who reach graduate school are in aspiration, if not in fact, as affluent and middle class as their fellow students. No one questioned whether the necessary cultural rapport stems primarily from identity of race or nationality or from shared socioeconomic class.

None of the participants, indeed, none of the architects of other education-for-disadvantaged programs, seemed to question whether the necessary personal characteristics were teachable and learnable at the graduate level. All programs have had a heavy component aimed at sensitizing students and preparing them to communicate with inner-city people, although psychologists have been telling us for years that personality patterns are fixed before the age of five. To be sure, it is possible to learn (and teach) some communication skills; but unless these are grafted onto a genuinely outgoing, empathetic, sensitive, and strong personality, one wonders about their value. No one at the seminar asked whether attitudes need to be recruited, not shaped in graduate school.

All the delegates to the Milwaukee seminar agreed that field experience is essential. One of the most valuable elements in the proceedings is the frank discussion of problems encountered in arranging fruitful field experiences. The opportunity provided at Case Western for students in the second year to "take over" the management of a Cleveland Public Library branch warrants pondering by other library schools preparing public librarians and by public libraries that may agree to cooperate.

In general, all the experimental curricula tend to de-emphasize traditional library skills in favor of courses or field work designed to sensitize the student to inner-city individuals and groups. Librarians, educators, and students seem to accept tacitly the judgment of library competencies reflected by Lotsee Smith: "It is my opinion that you can take a member of a minority group and train them fairly quickly in library skills either as a para-professional or as a professional . . ." (p. 36). Is Smith's assumption valid? Are we sure that first-rate competency in information delivery is not needed in the complexities of the inner city? Have we reason to believe that such competency is not central to the traditional library skills in arranging, retrieving, and disseminating the human record? Is the human record less vast, the need to make it accessible less urgent, in the inner city?

Some of the most provocative pages in the compilation are those of a 2-part discussion of the "advocate counseling model," presented by Michael C. Brophy of the University of Wisconsin—Milwaukee (pp. 40–63). Librarians with surface understanding of the advocate role have much to learn from Brophy's concepts and process.

Although there is little evidence in Samore's compilation that participants in Milwaukee faced the hard questions, the seminar itself and its proceedings serve a useful purpose in reflecting the current state of the art, if only to remind us that we have a long, long way to go if we really believe that everyone has a right to access to the human record.

Genevieve Casey, *Wayne State University*

Special Libraries: A Guide for Management. By Jo Ann Aufdenkamp, William S. Buddington, Shirley F. Harper, and Ruth Nielander. Edited by Edward G. Strable. With revisions through 1974. New York: Special Libraries Association, 1975. Pp. vi + 74. $8.00 (paper). ISBN 0-87111-228-0.

Special Libraries: A Guide for Management has been written primarily for those managers who are charged with finding long-term solutions to the information needs of their organizations and those who want to evaluate the functioning of an existing special library. The volume is a brief, but thorough, description of when to start a special library; what such an organizational unit can do; and what resources are required to accomplish its purposes.

The authors note in the foreword that this is a "revision and updating" of the 1966 version with the same title. One short chapter has been added, some chapters rearranged, and portions on automation revised. The alterations are relatively minor, and the authors are correct when they state that ". . . structurally and philosophically the *Guide* is little changed from the original publication . . ." (p. v).

The first 2 chapters of *Special Libraries* define a special library and an information center and distinguish these from libraries with which the general reader may well be more familiar. The third chapter is principally a list of problems which would indicate an organization's need to set up a special library. These 3 chapters provide management with a general idea of what a special library can and cannot do.

The various functions of acquisition, organization, and dissemination of information are discussed in the next 4 chapters. The elements of each function are enumerated in enough detail to give a good basic understanding of the functions that a library carries out. The chapter on levels of function of each of these activities is particularly

useful in measuring the sophistication that is possible in special library services to an organization. This codification is also a useful summary of all the activities that can be performed by a special library.

The final chapters attempt to relate the special library to the organization's structure and deal with staffing requirements, space allocations, equipment, and budget. Again, the discussion is basic; but it touches on all the important aspects of the subject. The chapter on budgeting is by far the most extensive in the volume. Budget planning and elements of an operating budget are reviewed in considerable detail. This emphasis is appropriate in a book aimed at management, and the discussion is realistic and helpful.

Appendix A includes a brief questionnaire for a company to use in evaluating the services of a special library (the questionnaire was designed specifically for use by the New England Mutual Life Insurance Company). The form is short enough to have some chance of being returned, but it suffers from unfamiliar format and abbreviations.

The suggested additional readings are of necessity more oriented to persons in the library field. The works chosen are of high quality; and they would be especially useful for understanding the particular types of special libraries needed in advertising, banking, etc. An effort has been made to choose current articles and books on a wide range of specific and general topics.

Like the 1966 edition of *Special Libraries,* this book is valuable for its concise, but detailed, description of special library functions. It could be useful to management not only in setting up and evaluating special libraries but also in orienting a library staff, in guiding the setting up of a new library, and in justifying and explaining aspects of special library functions to management. The language is nontechnical, and thus the volume is comprehensible to the nonlibrarian. The 1974 revision would not be necessary, however, if the 1966 version were already in a library's possession.

Margaret Ann Corwin, *American Society of Planning Officials, Chicago*

A Manual on Medical Literature for Law Librarians: A Handbook and Annotated Bibliography. Compiled and edited by Roy M. Mersky, David A. Kronick, and Leslie W. Sheridan Dobbs Ferry, N.Y.: Oceana Publications, 1973. Pp. xiii + 170. $15.00. ISBN 0-87802-101-9.

This book starts with an implied misconception. The implication that only law librarians among librarians generally need an introduction to medical literature, and especially the legal aspects of medicine, is simply not true. The necessity of dealing with questions about abortion, euthanasia, pollution, occupational safety and health, mining (black lung disease, etc.), malpractice, IQ, legal death, national health insurance, tort injuries, prosthetics, cyborgs, sex, human experimentation, and any number of others is likely to be a real problem for most librarians on a daily basis. Thus, a good manual for dealing with these issues is a necessity for all librarians.

The *Manual on Medical Literature* is a fairly good source for this information. A major portion of the entire book (pp. 1–77) consists of the first chapter, "Medical Bibliography." The most distinctive part of this chapter is section C, "A Selected List of Representative Titles in the Literature of Science." This section (pp. 11–63) covers the major medical and nonmedical works, serial and monographic, except medical indices (covered in the next section of the chapter). The key to the chapter is "Analysis of a Reference Tool" (pp. 12–13), which sets up a framework for the description and analysis of reference works which might very well provide an important model for those who teach reference courses generally, not to mention a significant analytical tool for book reviewers. The descriptions of the scientific reference tools covered in this section are among the best anywhere and are the most generally useful feature of the book.

Chapter 2 is a disappointment. It attempts to deal with the problem of the unique terminology used in the medical sciences. It lists works on terminology (pp. 79–80) and presents a rather long list of Greek and Latin word elements (pp. 81–94). The authors apparently sensed that use of the list as a reference device would be difficult, so they present it as a course to be learned, ending the chapter with a "Self-Assessment Test" (pp. 95–100). This device seems inappropriate and out of context with regard to the approach of the rest of the *Manual.* In any case, any librarian having to deal with these terms and word elements on a daily basis would learn them that way.

Chapter 3, "A Suggested Citation Style" (pp. 101–2), is very useful for nonlaw librarians. It introduces the reader to the form common in much medical and general academic literature. It has two drawbacks. First, it is too brief and does not list a standard citation or style book to look to for citation questions not answered in the text. Second, it disregards the fact that law has its own citation format, which legal users will probably continue to prefer using, even with medical literature.

The fourth chapter, "Cataloging and Indexing Tools" (pp. 103–22), provides a subject breakdown of the Library of Congress KF schedule for sections relevant to legal medicine and a list of subject headings appropriate to this subject drawn from the *Index to Legal Periodicals,* the *Index to Periodical Articles Related to Law,* and the Criminal Justice Reference Library of the University of Texas. The KF and *Index to Legal Periodicals* lists are likely to be very helpful to both catalogers and reference librarians. However, this section of the manual might have been made more useful if expanded and changed. First, sections of the Library of Congress R-classification schedule dealing with legal medicine should have been included, not to mention sections of the B and H schedules dealing with psychological, philosophical, labor, and sex questions of relevance to this subject. Second, inclusion of a subject analysis of the relatively minor *Index to Periodical Articles Related to Law* and a single library's subject headings is questionable. It would have been far more useful to include notes on Library of Congress subject headings as well as subject headings in such services as *Public Affairs Information Service* and *Readers' Guide to Periodical Literature.* Roy M. Mersky is editor of the *Index to Periodical Articles Related to Law* and director of research at the University of Texas Law School, of which the Criminal Justice Reference Library is a part.

Chapter 5, "Selected Current Literature on Medicine and the Law" (pp. 123–47), is designed as a bibliographical source of materials to assist the librarian in becoming familiar with key areas of legal medicine. It contains annotated citations of materials on major modern issues in legal medicine, biomedicine (human experimentation and unusual new surgical techniques), environment, and automated information retrieval in medicine. There is also a supplementary list, which is not annotated. The annotated list is useful, though the number of new books and articles since publication have dated it. In the introduction (pp. 124–26) to the chapter, a totally inappropriate paragraph is inserted which has no other useful effect than to advertise books by the publisher of the *Manual* (pp. 124–25). It is inappropriate because no other publisher of law books on legal medicine is cited, even though Lawyers Co-operative Publishing Company, Matthew Bender, and Callaghan, among others, are active in the field.

Chapter 6 is a listing of libraries in the Regional Medical Library Network, a federally supported group of libraries designed to give full access to medical literature on a nationwide basis. Contacting a member library in this network can be useful to the librarian and user when available resources fail to solve a problem. Indeed, this network should be a model for future developments in other subject areas. It would have added immensely to the usefulness of this listing if telephone numbers had been added.

Finally, some caveats. There is no index, and author and title indices for all the bibliographies would have been useful. The text is reproduced from typed copy, obviously for reasons of economy, but the appearance is not at all pleasant. Paper quality is good, and the book is well bound. The *Manual* is recommended for all law libraries,

special libraries having to deal with medical problems on an irregular basis, and larger general libraries.

Richard L. Bowler, *University of Chicago*

Media Programs: District and School Prepared by the AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS, AMERICAN LIBRARY ASSOCIATION, and ASSOCIATION FOR EDUCATIONAL COMMUNICATIONS AND TECHNOLOGY Chicago: American Library Association; Washington, D.C.: Association for Educational Communications and Technology, 1975. Pp. viii + 128. $2.95 (paper). ISBN 0-8389-3159-6.

Media Programs: District and School replaces *Standards for School Media Programs,* published jointly in 1969 by the American Association of School Librarians and the Department of Audiovisual Instruction of the National Education Association (since 1971, the Association for Educational Communications and Technology). This publication reflects, as did the previous edition, the concerns of the profession and describes the rapidly occurring changes in the field of education. All levels of media programs are considered in terms of four major functions: design, consultation, information, and administration.

The functions are explained in detail in chapter 2, "The Media Program," then related to individual facets of the program in succeeding chapters. Program is discussed at school, district, regional, and state levels. Explanation of the interrelationships of each to the other will be useful to larger districts. Individual schools will also find many applicable ideas.

Personnel, a basic ingredient of any program, is defined and delineated in chapter 3. Suggested ratios are given for professional, technical, and clerical help according to school population. Perhaps overlooked in this area is the role of the generalist—the training and employment of the assistant superintendent, director of curriculum, etc.—who has line responsibility in the media program but does not necessarily have a background in media. Excellent definitions of the specialist and other media professionals are provided. However, it appears that many districts employ a "generalist" at the various levels described, and the book realistically should have considered the "generalist" at all levels.

Qualitative goals are given for personnel and for program. It is stressed that these are guidelines for "excellent district and school media service" to the user. Quantitative goals are also given for collections and facilities. It should be noted that these are recommendations—perhaps goals to be set for schools in the process of building a media program.

In the section "Collections: Recommendations for Meeting User Needs," some excellent suggestions appear under "Consideration in Making Choices." Thoughtful guidelines to be considered before making a purchase are listed with each format. These considerations should be most helpful to the media person, either in training or working in the field. The "Extended Provisions" section will be useful in program considerations as well as in planning for collections. Material lists are followed by a list of equipment needed to employ each format.

In the area of facilities, the relationship of personnel to program is considered, as well as material to machine—and material to other materials. For anyone planning or remodeling a facility for a media program, chapter 7 provides quantitative and qualitative goals succinctly.

Like many other publications, this book emphasizes the complexity of education. Education continues to be a birth-to-death process. The people involved in the writing, rewriting, and editing of this volume see media as a vital part of man's evolvement. Our concern must now be that this book be read, studied, and discussed among

educators and lay persons. My fear is that the book will be read and found threatening by some administrators or never read. If this publication is read, debated openly, reread, shared among those concerned, adapted in part, considered in long-range goals, or modified to meet specific needs, it *will* serve the profession and the purpose of its creation—better media service to all users.

Elinor Gay Greenfield, *Table Mound Elementary School, Dubuque, Iowa*

Changing Patterns in Information Retrieval. Tenth Annual National Information Retrieval Colloquium, May 3–4, 1973, Philadelphia, Pennsylvania Edited by CAROL FENICHEL Washington, D.C.: American Society for Information Science, 1974. Pp. 175. $15.00. ISBN 0-87715-106-7.

Occasional stocktaking of progress is a useful service to scholarly and professional fields alike, inasmuch as it helps to detect patterns and trends of their past and of their probable future development. In the professional and scholarly field concerned with the bibliographic control, availability, and use of recorded knowledge—a field rather inaccurately referred to as "information storage and retrieval"—such stocktaking has been conducted in minute detail since 1965 by the *Annual Review of Information Science and Technology* On the other hand, authoritative state-of-the-art analyses of longer time spans are quite rare; indeed, *Changing Patterns in Information Retrieval* is able to refer only to one precedent in the United States, the 1961 annual meeting of the American Documentation Institute (now the American Society for Information Science). The dozen years which had elapsed since this ADI meeting thus provided the sponsors of the tenth annual National Information Retrieval Colloquium, held in May 1973 in Philadelphia, with a tailor-made conference purpose—to take an "objective look, in order to predict the directions in which this field is going" (preface).

The result is neither objective nor predictive. Except for R. S. Taylor's thoughtful and all-too-brief keynote address on "change," the reader will find that the colloquium had little to say about future directions of the field. The 4 state-of-the-art papers which determined the subject domain and the format of the major sessions ("User Behavior," by D. W. King and Lee E. Palmour; "Strategies for Organizing and Searching," by M. E. Stevens; "Technology for Storage and Retrieval of Bibliographic Data," by L. Schultz; and "Information as a Product," by J. W. Murdock) have the flavor of knowledgeable, but personal and eclectic, commentaries, rather than of objective studies of trends. As such, they offer a readable and often perceptive perspective on a decade of efforts which made present-day systems and services possible—efforts which are, however, treated much more exhaustively and systematically in the chapters of the *Annual Review*.

Each state-of-the-art paper is followed by short, prepared statements of several panelists; these 14 brief papers offer, for the most part, sketchy comments on the field and its activities. The discussions at the sessions are not recorded in the published proceedings but are available separately as a transcribed hard copy ($5.00) or microfiche ($1.50) from the ASIS National Auxiliary Publications Service.

The annual information retrieval colloquia are sponsored by the Colloquium on Information Retrieval, Inc., a group of a dozen organizations in the Pennsylvania area.

Vladimir Slamecka, *Georgia Institute of Technology*

Communication, Knowledge and the Librarian. By K. J. MCGARRY Hamden, Conn.: Linnet Books; London: Clive Bingley, 1975. Pp. 207. $10.50. ISBN 0-208-01369-3.

The concept of librarian as the receiver, organizer, custodian, and distributor of all of a culture's preservable knowledge would seem to call for a theory of communication

powerful enough to encompass not just linguistics, communication theory, semiotics, kinesics, and the sociology and technology of mass communications (not to mention all the technical aspects of library science) but the very concept of knowledge itself as well. K. J. McGarry, lecturer in the College of Librarianship, Wales, attempts to sketch the outlines of that theory and the historical foundations of the dissemination of knowledge to the masses. Beginning with a simplified version of C. Shannon and W. Weaver's model of communication, source-message-channel-receiver, McGarry first surveys a variety of topics related to those components of communication: the organizing capacity of the mind, linguistic theory, cultural anthropology, and interpersonal communication, both verbal and nonverbal. He then outlines the history of mass communication, beginning with the transition from a preliterate oral-aural society to the invention of writing and continuing through the introduction of printing to the contemporary uses of radio, television, and satellite communications systems. In his last chapter, McGarry attempts to synthesize the preceding 7 in order to answer two questions: How do the mass media function as information systems, and what is the relevance of mass media research to the librarian?

Written by a librarian for librarians, the book provides lists of names and titles that anyone entirely ignorant of the field of communication might be well advised to pursue. Unfortunately, in order to get the lists, the naive reader will also acquire a large quantity of half-digested misinformation in a prose style that too often defeats McGarry's intention and topic, to communicate about communication—all contained in a very badly proofread book.

McGarry attempts to make his subject particularly relevant to librarians by intermittently offering advice couched in the various languages of the communications model he has been developing. After discussing the ideas of redundancy and information developed by cyberneticist Norbert Weiner, McGarry observes that "in the library situation, the librarian may act as a necessary redundancy factor in elucidating the index for the baffled reader, bringing the formal system of the index into contact with the concept system of the user" (p. 31). I believe this means the librarian tells the patron how to use the card catalog. After discussing social roles and role relationships, McGarry offers this: "The enquirer in search of information enters into a role relationship vis-à-vis the librarian. He perceives the librarian as having certain role obligations, in his case the provision of information and as having the skills necessary to that end. If the enquirer finds that the librarian does not appear to live up to the skills and obligations of his perceived role he may terminate the enquiry relationship" (p. 76). I believe this means that if the librarian shows he does not know his job, the patron will go and find someone who does.

It is not at all clear that using terms like *entropy, redundancy, role playing,* or any of the other terms from the fields McGarry touches on to discuss libraries and librarianship adds much to a theoretical understanding of what librarians are up to.

In addition to a number of sheer errors of fact, there are some very misleading overgeneralizations. I cite only a few: it is not the case that man is the only creature that can use symbols (p. 44), that language molds the thought of its users (p. 49), that laboring classes are unable to manipulate abstractions (p. 53), that the major units of thought are units of language (p. 69), that we have trouble thinking about things for which we have no words (p. 70), that hierarchical systems are of the same ontological status as hierarchical authority (pp. 79, 85).

Finally, McGarry pays little or no attention to such potentially revolutionary developments in information processing and dissemination as cable television, information retrieval systems, or the computerized storage of texts capable of being reproduced on demand, even in the home.

As a very quick survey of a number of concepts relevant to knowledge and commu-

nication, this book might be of some use to librarians almost entirely ignorant of those topics. It is difficult to recommend it to others.

Joseph M. Williams, *University of Chicago*

Communication in Science By A. J. MEADOWS. London: Butterworth & Co., 1974. Pp. 248. £6.00. ISBN 0-408-70572-8.

In many ways reviewing a good book is a hard and perhaps thankless task. Error and arrogance and poor writing can be displayed and described more easily than the excellences of thoughtful scholarship—and the latter is what this book is about.

The central role of communication in science emerged in the seventeenth century, and it is evident in retrospect that the scientific media of communication were institutionalized long before any other aspect of science. Since World War II, scientific communication has been the focus of cross-disciplinary research conducted with a variety of theoretical and applied goals. A. J. Meadows has taken much care to bring the evidence together; the exertion of his talents has made clear to me how much of the work connects up and makes sense. There are gaps in the resultant structure; however, the lucidity of presentation and the breadth of sources of data which Meadows cites will insure that these gaps are soon filled. This book should be a mandatory starting place for students considering doing quantitative dissertations in science studies or information science. Looking at my rather marked and battered copy, I realize that I found an idea that I wished to worry further about at intervals of roughly every 5 pages.

The approach taken in the book is to consider quite broad topics (chapters), breaking them into subtopics, and to raise, for each subtopic, a series of wide-ranging empirical questions. Data, some from Meadows's own work on astronomy, is discussed relative to each issue; and he covers all the better-known work in sociology, science studies, and information science. (It is regrettable that book publication cannot be hastened so as to permit books to cover more recent studies.) His approach is theoretical in a systematic way; that is, he considers what are the reasonable dimensions of the social system; and, while some would regard the outcome as atheoretical, he effectively avoids Robert Merton's conceptual and Derek Price's data blinders. Anyone is fair game for him, and the catholicity of his tastes will be particularly welcomed by students.

My criticisms regarding the book are minor, perhaps irrelevant. A couple of missing references (noted only because they raised interesting points) and a not very useful appendix can be mentioned. I wish the book could be used as part of the reading for a course in science reference. The tone and viewpoint of the book, however, are directed toward the converted. There is need for a work with a more evangelical approach that would cover much of the same ground.

In courses for advanced students, the book should be supplemented by more speculative writings as, for example, Kenneth Boulding's *The Image: Knowledge in Life and Society* (Ann Arbor: University of Michigan Press, 1956) and by work that places science in a broader social context. Obviously, students should not be allowed to forget broad unanswered questions.

To sum up, the book may help to make the study of much of science more systematic. Meadows has contributed to ordering a dispersed literature and relating it to major questions. Although his concern is with how science works—not how scientists work with literature or how literature is structured—his approach could have salutary effects on library and information science education. Perhaps, for the able student, it might make scientific periodicals and reference works a good deal less mysterious,

simply by placing them in an appropriate context. I admire Meadows's reasonableness in approach and his ability to identify issues and hope that the book comes to serve as a model for other writers on science and information.

Belver C. Griffith, *Drexel University*

Visual Communication and the Graphic Arts: Photographic Technologies in the Nineteenth Century. By ESTELLE JUSSIM New York: R. R. Bowker Co., 1974. Pp. xv+364. $25.00. ISBN 0-8352-0760-9.

Miss Jussim has written a puzzling, though interesting, book for students of prints and contemporary illustrated books. Her major concern is with the impact of photography and photomechanical technologies on what she calls "information transfer" and "artistic expression" as they relate to printed pictures. The basis of her study is the classic *Prints and Visual Communication,* by William Ivins, Jr. (Cambridge, Mass.: Harvard University Press, 1953). Ivins's work furnishes both the staring point and the major critical target of Jussim's book.

The book has a dual purpose. Jussim introduces the concepts and vocabulary of information theory as tools for correcting and expanding upon Ivins's theories about prints. She also reviews the work of nineteenth-century illustrators as part of an examination of the impact of phototechnologies on their expressive potencies and limitations.

Her review of the numerous photomechanical methods of print production invented in the nineteenth century and their effect upon illustrators and audience is both revealing and important. Her introduction of concepts from information theory—message, channel, code, distortion, interference, transmission, noise, etc.—seems, however, to be thoroughly unnecessary. No explanations she makes concerning the impact of photography on the graphic arts cannot be made more simply and clearly without them. No useful implications follow from the adoption of the new terminology. Indeed, her use of information theory seems to restate the obvious: that representations of any kind have a material basis and that a change of the material may effect a change in the resulting representation.

Jussim spends considerable effort reexpressing Ivins's conclusions about print media and phototechnologies in her new vocabulary. This attempt is necessitated by Ivins's major conclusion that photography, owing to its supposed invariability, provides information about "matters of fact" without syntax and is therefore superior to all other print media. However, information theory demands that transmitted information, no matter what its origin, be codified. Ivins believed that all handmade pictures require a syntax (or code). This syntax provides a way of moving from the notion of something to be depicted to the picture. Such schemata provide not only the rules for laying down line and color but also the rule for determining the relevant aspects of the thing to be depicted. Moreover, in order to "translate" a work of art—say, a painting—into print form, it becomes necessary to impose another syntax upon the original. This added syntax is demanded by the particular print medium and inevitably results in a "distortion" of the original by handwork and plain human frailty. Ivins contended that photographs have no syntax; that, since photography is invariant, the photographer cannot add, omit, or distort. Finally, he maintained that the reproduction of photographs by the improved half-tone screen produced a subliminal, nondistorting syntax that did no damage to the original information.

Jussim takes Ivins to account for his clearly incorrect conclusions about photography and syntax; but, in so doing, she accepts his distinction between "pictorial expression" and "pictorial communication of statements of fact," and her reformulation of Ivins's theses are ultimately open to the same objections advanced against his. The

adoption of the fact/expression distinction places her theory in metaphysical jeopardy. And the distinction is required by her theory. If one believes in codes, one must necessarily posit information to be codified. But in what sense is an artist (Jussim calls the artist the "primary codifier") codifying a preexistent piece of information? And how does one separate the information from the expression, the report from the packaging? This line of questioning ultimately leads to an examination of the expression "visual statement of fact," an examination which Jussim does not provide. Do prints have a truth value? Is Jean Duvet's *Marriage of Adam and Eve* false? Is a photograph by Frederick Remington true?

Neither Ivins nor Jussim recognizes that schemata (or syntaxes or codes) are not rules for the reconstruction of reality (whatever that much misused term may mean). And their failure to recognize this simple fact leads them to pitch their arguments in metaphysical terms. They wish to know how close a print can come to an original or reality. But the problem of the graphic arts is quite different. It is, simply put, how dots and lines and ink and paper can be used to make representations. Thus Jussim's book is based on a fundamental misunderstanding of representation. The problem of the graphic arts is not being thrice or twice or once removed from reality. Representation is, after all, re-creation; and, whether it is done with ink, dots, and lines, cameras and light-sensitive film, or paint and brush, it is done within the constraints of culture, medium, and available modes of depiction. There is no way to get closer to or further from *the facts* when the purpose of representation.

Joel Snyder, *University of Chicago*

Book Publishing: What It Is, What It Does. By JOHN P. DESSAUER. New York: R. R. Bowker Co., 1974. Pp. xv+231. $11.95. ISBN 0-8352-0758-7.

The title of this book well describes its purpose: to teach people what goes on in a publishing house. The inspiration for it came to the author when he was assistant director of a university press (presumably Indiana University). He discovered the members of the staff had no means of seeing the larger picture of what they were doing. The inspiration reemerged from time to time; and, after many years, he has produced this admirable textbook.

Other books have been published with this view, of course, and the important ones are mentioned in the "Bibliographic Note" (pp. 217–18). Dessauer's book reflects the integrated treatment of a single author, as contrasted with the series of essays in *What Happens in Book Publishing,* edited by Chandler B. Grannis (rev. ed.; New York: Columbia University Press, 1967). Unlike Datus Smith, Jr., in *A Guide to Book Publishing* (New York: R. R. Bowker Co., 1966), an excellent manual aimed at developing countries, Dessauer focuses on book publishing in the United States. He aims more at the beginner wanting to know the what and how of publishing than does Herbert S. Bailey, Jr., who takes a more managerial approach in *The Art and Science of Book Publishing* (New York: Harper & Row, 1970).

The content of Dessauer's book embraces the range of book publishers' activities: a broad perspective; the recruitment of manuscripts; manufacturing and design; marketing; storage and control; and finance, planning, and management. The treatments are brief, and it is assumed that the reader will go to fuller treatments of spcial areas; but the exposition is clear and supported by tables of figures that are as up to date as an inflationary economy will allow. Throughout, the author reflects a humane sense of responsibility, and he displays remarkable powers of organization and condensation. These powers are particularly noticeable in "The Past Is Prologue" (pp. 2–10), a survey of publishing from the times of ancient clay tablets and papyrus rolls up to the aftermath of the publishers' boom of the 1960s, a little oversimplified, but a very

worthy, 9-page effort. This book is to be highly recommended to students in library schools and, one would suppose, to those workers in publishing for whom it was designed. A useful glossary (pp. 205–15) and a comprehensive index increase its value.

Howard W. Winger, *Graduate Library School, University of Chicago*

A History of Book Publishing in the United States. Vol. 2: *The Expansion of an Industry, 1865–1919.* By JOHN TEBBEL New York: R. R. Bowker Co., 1975. Pp. xii+813. $29.95. ISBN 0-8352-0497-9.

The years from the close of the Civil War to the end of World War I—the period covered by volume 2 of John Tebbel's projected 3-volume *History of Book Publishing in the United States*—are of great significance and interest. The reading public expanded enormously: the population of the United States grew from 38 million in 1870 to over 105 million in 1920, educational opportunities increased, and the public library movement became firmly established. The coming of the railroads in the decades before the Civil War had begun to transform publishing from a regional into a national industry, and technological advances continued to revolutionize the processes of bookmaking. Firms such as Harper, Appleton, Putnam's, Scribner's, Wiley, Houghton Mifflin, and Little, Brown, whose origins lay before the Civil War, matured; newcomers like Holt, Doubleday, Doran, Grosset & Dunlap, Crowell, Ginn, and Heath arrived on the scene; as the era closed, publishers such as Huebsch, Knopf, and Boni & Liveright were getting started. The number of titles issued annually by American publishers grew from 2,076 in 1880 to 13,470 in 1913 (a figure which would not again be reached until the late 1950s), then slipped to 8,594 in 1919. Then, as now, distribution posed a problem of great magnitude. Publishers' discount policies were chaotic, and price cutting was rife. The years following the Civil War were the heyday of the door-to-door book agents of the subscription publishers. The sales they achieved were often astonishing, but they were necessarily of a severely restricted range of titles, intensively promoted. Only 10 percent of the books sold before World War I were purchased in bookstores. As Tebbel writes, it was "a period when the general organization of the industry was established and the problems which still beset it were defined" (p. ix). Significant developments of this period of American publishing include the rash of cheap books in the 1870s and 1880s; the culmination of the struggle for international copyright protection in 1891; the organization of the book trade, with the founding of the American Publishers Association in 1900 and the American Booksellers Association in 1901; and the unsuccessful attempt to achieve retail price maintenance.

There has been no surfeit of scholarship on any period of American publishing, but the years covered by this volume have been especially neglected. The only general studies devoted to the period are Donald Sheehan's *This Was Publishing: A Chronicle of the Book Trade in the Gilded Age* (Bloomington: Indiana University Press, 1952) and Madeleine B. Stern's *Imprints on History. Book Publishers and American Frontiers* (Bloomington: Indiana University Press, 1956). We have a handful of monographs such as Raymond Shove's *Cheap Book Production in the United States, 1870 to 1891* (Urbana: University of Illinois Library, 1937). The only in-depth scholarly history of a major publisher of the period is Ellen Ballou's excellent *Building of the House: Houghton Mifflin's Formative Years* (Boston: Houghton Mifflin Co., 1970). Several minor publishers have been more fortunate: here we have Sidney Kramer's study of Stone & Kimball and Raymond Kilgour's histories of Estes & Lauriat, Roberts Brothers, and Lee & Shepard.

The paucity of previous work must be taken into account in assessing Tebbel's book, which is primarily a synthesis rather than a work of original research. To base a history of American publishing from 1630 to the present on original digging in the archives would be more than one man could achieve in a lifetime, and Tebbel has

wisely not attempted it. He has relied heavily on previous scholarly work where it exists. For this volume he has had to rely more than one wishes were necessary on the memoirs of publishers and the anniversary histories of individual firms—a class of literature which not infrequently combines reticence with unreliability. He has, however, made good use of existing theses and dissertations, including the remarkable series of master's theses on this period of American publishing produced at the University of Illinois Graduate School of Library Science between 1928 and 1943. (One dissertation he seems to have missed is that of Joe L. Norris, "Pioneer Marketing Associations of the American Book Trade, 1873–1901," Ph.D. diss., University of Chicago, 1938.) As in volume 1, he has used the Adolf Growell scrapbooks and the resources of the Frederic G. Melcher Library at the R. R. Bowker Company. Above all, Tebbel has relied on *Publishers' Weekly,* which conveniently commenced publication in 1872. As any publishing historian must, he has gone through its files meticulously, page by page.

From these sources Tebbel has culled a vast quantity of information and has organized it with great skill. Part 1, "A General Survey of Book Publishing, 1865–1919" (pp. 1–183), deals with such topics as the expansion of publishing in the eastern cities; problems of distribution; the rise of trade organizations; author-publisher relationships; and the development of publicity, advertising, and promotion. A particularly interesting section here, on publishing and the First World War, deals with the vagaries and effects of wartime censorship and with the propaganda efforts of American publishers on behalf of the Allies, even before American entry into the war. On the whole, part 1 presents a balanced and effective overview of American publishing in this period. Still, the lack of previous work is often evident. For example, Tebbel includes a 46-page survey of trends and events in publishing from 1872 to 1914 which consists simply of a judicious year-by-year selection of highlights from the pages of *Publishers' Weekly.* It works surprisingly well; but this is the method of a scrapbook, not synthesis.

The next 2 parts are devoted to capsule histories of individual firms: part 2 (pp. 185–306) to the continuing histories of firms established before the Civil War, part 3 (pp. 307–479) to firms founded during the years 1865–1919. These vary in length from 18 pages for Harper to a paragraph or two for minor publishers such as Clarence "Pop" Bagley of Olympia, Washington, who published 3 books. Though full of fascinating material, the 300 pages of firm histories are likely to daunt the most dedicated long-distance reader. However, they are invaluable for reference and are actually extremely interesting if read selectively. Part 4, "Specialized Publishing" (pp. 481–607), covers cheap books and paperbacks, subscription book publishing, religious book publishing, and textbook publishing, with briefer notes on the rise of university presses, music publishing, children's book publishing, and the evolution of the R. R. Bowker Company. Here too we have capsule histories of individual firms included in the relevant sections. Part 5, "Censorship, Copyright, Best Sellers and Technology" (pp. 609–71), is perhaps the sketchiest of the book. The section on the effects on publishing of technology and the industrial revolution is disappointingly thin. And Anthony Comstock, though hardly one of the more edifying figures in American history, needs to be presented as something more than a two-dimensional villain.

There are 3 appendices. Appendix A on American book title output, 1880–1918, provides year-by-year figures broken down by subject categories. Appendix B is a graph of book production from 1890 to 1916. Appendix C consists of 3 alphabetical directories of American publishers which originally appeared in *Publishers' Weekly* in 188[illegible], 1900, and 1919.

The book is a fairly straightforward factual account. One might wish that Tebbel's history were set more firmly against the social, intellectual, and economic background or that he offered more interpretation. Nevertheless, simply by bringing this material

together and making it easily accessible, Tebbel has performed a great service. It has been a gargantuan task, and future historians of American publishing will be grateful to him. The bibliographical notes as well as the text should be consulted by future researchers. They are extremely useful. And, whereas the notes in volume 1 were all massed at the end of the book, in this volume they appear at the end of each part, making them much easier to consult.

Gordon B. Neavill, *University of Chicago*

Authors, Publishers and Politicians: The Quest for an Anglo-American Copyright Agreement, 1815–1854. By JAMES J. BARNES. Columbus: Ohio State University Press, 1974. Pp. xv + 311. $13.00. ISBN 0-8142-0210-1.

There is a considerable amount of interest these days in literary copyright among American authors, publishers, and politicians. This interest is more financially than philosophically motivated, however; and relatively little has been written about the history of American copyright or of its relationship with its English ancestor and counterpart. The best overview of British and American copyright history is Lyman Ray Patterson's *Copyright in Historical Perspective* (Nashville, Tenn.: Vanderbilt University Press, 1968), but, while Patterson mentions nineteenth-century American developments, he devotes most of his attention to the period leading up to 1774 and the collapse of de facto perpetual copyright in Great Britain. Barnes's *Authors, Publishers and Politicians. The Quest for an Anglo-American Copyright Agreement, 1815–1854,* is thus especially welcome, the more so since the book is thoroughly and accurately researched and the material coherently presented.

Barnes summarizes copyright developments in the United States from 1815 onward; but his story really begins in 1838, when Parliament passed legislation enabling Great Britain to become a party to international copyright agreements. While there was considerable British and American pressure on the Congress to subscribe to an international copyright agreement, the position of this country in the earlier nineteenth century was rather like that of many Third World nations today: too much to lose and too little to gain—that is, too many British authors offering tempting piratical opportunities to American publishers and too few native authors to complain that the shoe was on both feet. Authors, publishers, and politicians in both countries lobbied for American submission to an international copyright law; but, until the literary output of the United States grew sufficiently in quantity, there was little chance for a successful outcome of the many attempts to secure bilateral agreement.

One method, however, might have worked: bribery. Barnes's account of various unsuccessful attempts to push an act through Congress by this traditional nineteenth-century (one hopes) method makes fascinating, if unsavory, reading (the British Minister to the United States, John F. Crampton, wrote in 1851 that he thought the job could be done for £20,000).

Authors, Publishers and Politicians is not a general history of the earlier nineteenth-century book trade. Nevertheless, it adds much to our understanding of publishing history and practice on both sides of the Atlantic during the period it covers: and it will be useful reading for students of the history of the Anglo-American book trade. And, since literary biographers too seldom say very much about the relationship of their subjects to their publishers, let alone their interest in international copyright arrangements (and Dickens was not the only one interested), this book will also be welcomed by those more generally concerned with nineteenth-century English and American literature. "American" in the title of the book has a broader context than is often the case; Barnes includes a good chapter on the Canadian market for books published in the United States and Great Britain.

Authors, Publishers and Politicians is deftly and entertainingly written, and it is to be hoped that Barnes will go on to tell the rest of the story—developments from 1854 to the eventual copyright agreement reached between the United States and Great Britain in 1891.

Terry Belanger, *Columbia University*

Perspectives of the Black Press: 1974. Edited by HENRY G. LA BRIE III. Kennebunkport, Maine: Mercer House Press, 1975. Pp. xi+231. $12.00. ISBN 0-89080-000-6.

What are the unique characteristics of the black press in the United States? As viewed by its leading practitioners and scholars, what is the mission of the black press today? And what have been the special experiences of prominent black journalists reporting and writing for the black press in this country for the past fifty years?

Perspectives of the Black Press 1974, edited by Henry G. La Brie, III, seeks to answer these and other questions about the black press in the United States today. This book, the latest commentary to appear on the subject, is an excellent selection of well-researched studies by prominent black and white journalists and scholars of black studies in the United States today

All the selections in this volume attest in very diverse ways to the unique characteristics of the black press. Of particular interest is Thelma Thurston Gorham's brilliant study, "The Black Press and Pressure Groups," which cites and analyzes the unique restraints, press pressures, and social controls placed on the black press. Its conclusion, supported by examples discussed by Gorham, eloquently describes one of the unique characteristics of the black press: "In conclusion, no matter how one interprets or illustrates the interactions of the black media and its personnel with pressures in their environment, it is clear, beyond the shadow of a doubt, that the black press and black newsmen are *sources of control as well as subjects of control.*"

The mission of the black press is variously conceived by several contributors. Some view the mission as reporting news of the black community to the community at large while others see its mission as reporting news of the black community to the black community and the community at large. And still others regard its mission not only as reporting news about the black community to the black community and the community at large but also as a crusading force for the welfare of the black community. La Brie, in "Test of Testimony," a transcript of his testimony before the Ad Hoc Congressional Hearing on Mass Media Effect and the Black Community, adds another dimension to the mission of the black press. La Brie argues that part of the mission of the black press is to effect a realignment of the attitudes and values of the audience of the black press: "When source credibility is challenged, as is being done today, the realization surfaces that indeed this is not true for either the majority or the minority citizen. It is at this juncture that the black press has been and will continue to be the outside influence which affects realignment of attitudes and values for its audience."

Perhaps the richest selections in tone, facts, and documentation are the autobiographical commentaries of black journalists like Ethel Payne of *The Chicago Defender,* William O. Walker of *The Cleveland Call and Post,* and P. L. Prattis, formerly of *The Pittsburgh Courier.* Indeed, in these accounts, these men and women tell us exactly what is it like to be a black journalist in America. Little-known facts about their encounters with celebrated personages of America are uncovered in their commentaries. One senses in the selections of these black journalists the alienation, the sorrow, the joy, and the frustration of being a black journalist in America today.

Perspectives of the Black Press 1974 is a timely volume and fills a void in research on the subject. But it also points to the need for additional research in this area. It is to be hoped that more full-length biographies and autobiographies of black journalists

will be forthcoming and that more research on the effect of the black press on public opinion will be attempted by scholars, students, and practitioners of American journalism.

Donald Franklin Joyce, *University of Chicago*

Analphabetentum und Lektüre: Zur Sozialgeschichte des Lesens in Deutschland zwischen feudaler und industrieller Gesellschaft. By ROLF ENGELSING Stuttgart: J. B. Metzlersche Verlagsbuchhandlung, 1973. Pp. xiv+210; 6 leaves of plates. DM 32 (paper). ISBN 3-476-00271-3.

Der Bürger als Leser: Lesergeschichte in Deutschland, 1500–1800. By ROLF ENGELSING Stuttgart: J. B. Metzlersche Verlagsbuchhandlung, 1974. Pp. 375. DM 34 (paper). ISBN 3-476-00287-X.

Readers of Rolf Engelsing's frequent contributions to the *Archiv für Geschichte des Buchwesens* (*AGB*) will be pleased to see his latest research on aspects of the history of reading and literacy in Germany. As professor of economic and social history at the Free University of Berlin, as well as librarian and historian of the book, Engelsing has crossed numerous disciplinary lines in order to document this very elusive subject and establish a much needed foundation for the critical study of the history of reading in German language areas.

In 18 short chapters, *Analphabetentum und Lektüre* broadly and somewhat thinly surveys illiteracy and the impact of book production upon Germany from the end of the medieval period through the First World War. *Der Bürger als Leser,* treating primarily the rise of the middle-class reader in the northern German city of Bremen, is a very compact and richly documented case study which Engelsing has wisely limited to a manageable three centuries. As the former is more suggestive than definitive, it will be saved until the end of this review, while the latter will be discussed first.

Issued in 1960 as a lengthy article (*AGB,* vol. 3 [1960]; cols. 205–367) and substantially revised in this monograph, *Der Bürger als Leser* traces the development of middle-class reading in Bremen, a city which in many ways varied in its early modern development from that of other German urban centers. Printing was not permanently established there until the rather late date of 1565, while Lutheranism (essentially a Saxon ideology, as Engelsing notes) was relatively ineffectual in the city, because it could not overcome the linguistic barrier of the Low German of Bremen's middle class and was soon superseded by a rigorous northwest German and Dutch Calvinism.

In chapters 4 and 5 Engelsing has utilized a series of postmortem property inventories of private citizens between 1628 and 1673 (unfortunately, the series is broken until the year 1725, due to bomb damage in the municipal archive during the Second World War). Book inventories in these sources reveal small collections averaging 10 titles, surprisingly few Bibles, and an overwhelming amount of contemporary literature. After a half century of pietistic influence in the city, Engelsing found that the later middle-class inventories of 1725 contained only 8 percent secular literature and were characterized by small collections of intensively read devotional and ideological books of the pietists. By the mid–eighteenth century, however, the author notes a new generation of middle-class readers in Bremen who entended their reading interests to new fiction which was read once but seldom reread. Engelsing's concept of "intensive" as opposed to "extensive" reading first appeared in 1970 (see "Die Perioden der Lesergeschichte in der Neuzeit," *AGB,* vol. 10 [1970], cols. 945–1002) and represents an important new idea in the social history of reading in Germany. The author rightly suggests numerous factors in this change of reading habits: the rise of the periodical, the influence of new educational ideas stemming from Göttingen, the mid–eighteenth century establishment of reading societies and private lending libraries (Bremen's first appeared in 1751), and the French and English commercial influence in the city, all

of which stimulated the development of novel reading (the author notes particularly the impact of Fénelon's *Télémaque* and Defoe's *Robinson Crusoe,* as well as the pivotal influence of Klopstock's *Messias*). Engelsing also sets straight numerous misconceptions about the origins of the eighteenth-century *Lesegesellschaften* (thirty-six existed in Bremen by 1791), suggesting that their appearance reflected not so much the previous inaccessibility of books for middle-class readers but, rather, an active desire of a newly formed reading public to cultivate a specifically broader and more modern type of reading. The author also devotes a final chapter to the impact of extensive reading upon the education of women in Bremen, noting the important influence of the moralistic and educational novels of Samuel Richardson and of Christian Gellert's *Schwedische Gräfin,* which stimulated reading among German women in the second half of the eighteenth century.

Throughout this work, Engelsing does not fail to compare the situation of the middle-class reader in Bremen with that of similar readers in other German cities. Drawing continuously upon archival and literary sources, he has written a study which should long remain influential in the history of reading. An extremely rich bibliography has been assembled at the end of the work.

While *Der Bürger als Leser* remains compact, thorough, and well documented, *Analphabetentum und Lektüre* appears, on the other hand, loosely structured, its scope perhaps too broad and its documentation often rather incomplete. In brief chapters covering the later medieval period to the year 1920, Engelsing pairs discussions of the state of German book production in the intervening centuries with evidence of the varying degrees of literacy during those respective periods. One can sympathize with him in his difficult task of extracting meaningful data from such widely dispersed evidence as the decline in paper prices during the fourteenth century, the importance of sixteenth-century German writing manuals, the stimulation of the periodical press brought on by the need for current news during the Thirty Years' War, the impact of compulsory school attendance, attempts at reform in the teaching of reading, the introduction of the steel-tipped pen and the petroleum lamp, and the use of borrowers' statistics from late nineteenth-century reading associations and union libraries.

The author's decision to limit his evidence to already published sources, although expedient for him, has seriously limited the nature of the evidence which he employs This is especially clear for his much too brief discussion of reading in the first 200 years after the advent of printing. German scholars have been notorious for concentrating upon the private book collections of the learned classes during these two centuries, much to the detriment of work on middle-class book owners. By avoiding the (admittedly) painstaking work of searching out the latter in archival inventories, Engelsing has jeopardized his perspective on reading among all classes of German society. A case in point: Engelsing advances the interesting idea (p. 41) that the Latin school of the sixteenth and seventeenth centuries actually may have aided the continuation of illiteracy within the middle class. One cannot dispute the longevity of Latin reading in Germany, until the eighteenth century; but it would be helpful to know the proportion of Latin and German books in middle-class libraries of the sixteenth and seventeenth centuries—information available primarily in the very municipal archival inventories which the author disregards in his study. Somewhat surprisingly, Engelsing also fails to utilize a great deal of already published literature on German book ownership and reading. He omits the traditional studies of Karl Schottenlocher ("Bamberger Privatbibliotheken aus alter und neuer Zeit," *Zentralblatt für Bibliothekswesen* 24 [1907]: 417–60) and of Gustav Kohfeldt ("Zur Geschichte der Büchersammlungen und des Bücherbesitzes in Deutschland," *Zeitschrift für Kulturgeschichte* 7 [1900]: 325–88). In addition, he makes no mention of Heinrich Kramm's seminal *Deutsche Bibliotheken unter dem Einfluss von Humanismus und Reformation* (Leipzig: Otto Harrassowitz Verlag, 1938) or of Josef Rest's analysis of the inventories of private

librarires at Freiburg, which includes a large number of book collections from middle-class households ("Freiburger Bibliotheken und Buchhandlungen im 15. und 16. Jahrhundert," in *Aus der Werkstatt, den deutschen Bibliothekaren zu ihrer Tagung in Freiburg, Pfingsten MCMXXV, dargebracht von der Universitatsbibliothek* [Freiburg/Br.: C. A. Wagner, 1925], pp. 5–61). An important list of over 50 published catalogs of privately owned German libraries of the fifteenth and sixteenth centuries (many apparently unknown to Engelsing) can be found in the second appendix of Archer Taylor's *Problems in German Literary History of the Fifteenth and Sixteenth Centuries* (New York: Modern Language Association of America, 1939).

This is by no means to suggest that Engelsing has not provided an important study of German reading. Indeed, he has advanced some suggestions about the nature of German reading which will certainly engage the attention of future historians and sociologists of the topic. Only a partial listing can be noted here: the connection between early illustrated books of a popular nature and their printing in urban centers with a large middle-class population; the resurgence of illiteracy after the initial impact of the Reformation, a trend lasting until as late as 1740 and predicated upon a lack of administrative centralization in Germany; the general uneven advance of literacy throughout Europe, with the exception that reading was chiefly an urban phenomenon; or the problem, when studying book ownership and reading, of the unread book as a symbolic possession. Significant and unsolved questions concerning reading in Germany have been posed, and a useful bibliography of widely scattered literature bearing upon them has been gathered. If *Analphabetentum und Lektüre* still leaves great portions of the development of reading in Germany unexplored, the fault lies in the difficult nature of the subject, not in the author. It is to be hoped that his efforts will spur a greater number of social historians and students of printing history to investigate these problem areas.

Michael Hackenberg, *Berkeley, California*

Zuidnederlandse boekdrukkers en boekverkopers in de Republiek der Verenigde Nederlanden omstreeks 1570–1630. Een Bijdrage tot de kennis van de geschiedenis van het boek By J. G. C. A. Briels Bibliotheca Bibliographica Neerlandica, vol. 6. Nieuwkoop: B. de Graaf, 1974. Pp. xvi+649. Fl 180. ISBN 90-6004-323-5.

Since shortly after the invention of printing, the Netherlands has been an important center for the book trade. The precise geographic foci of that trade, however, shifted considerably in its first two centuries. After the new technology was first introduced in the Netherlands in 1473, it spread to quite a number of cities in both the northern and southern provinces. The educational centers of Louvain and Deventer were important in the beginning but soon came to share the trade with such cities as Gouda, Delft, and Antwerp. The early sixteenth century witnessed a rapid growth of the book trade in the south, above all in Antwerp, which quickly came to dominate the entire industry. Nearly 60 percent of all the men then active in the trade worked there (p. 4). Religious tensions and economic problems soon eroded that dominance, however; and after 1550 many printers and other bookmen emigrated to England or Germany. After 1570, as the revolt of the northern provinces began to succeed, the book trade grew rapidly in those areas. By 1630 this growth had proceeded to a point which made it possible for the book trade of the new Republic of the Netherlands to enter its golden age.

Drs. Briels has studied this 1570–1630 period of rapid growth in the northern Netherlands with great care. He is particularly interested in exploring the problem of whether this impressive boom was the work of artisans native to the area or was imported by talented immigrants originally trained in the south. He provides decisive proof that it was primarily an import from the south. That proof is both quantitative and qualitative. He studies closely the careers of some 364 individuals active in the northern Netherlands and provides hard evidence that a full 248 (68 percent of the

total) came from the south (p. x). That total might conceivably run even higher, if information can ever be found on the geographic origins of some of the more obscure men in the list. Furthermore, nearly all the bookmen most sophisticated in their technology and in their business arrangements came from the south. Northern authorities recognized these superiorities by giving southern immigrants most of the valuable appointments as official printers to municipalities, provinces, and universities (see the tables on pp. 133–35).

In developing an explanation for this striking and massive shift, Briels explores primarily the greater freedom permitted to bookmen in the north. While there were attempts at censorship in that area and while the printers of certain cities like Dordrecht tended to limit themselves to hard-line Calvinist works, others printed works quite critical of the official Calvinist line. For example, Gouda permitted the publication of Libertine works and Rotterdam the publication of Remonstrant books. Other cities tried to rise above the confessional battles. Leiden became a center primarily for the publication of academic books, valued in Catholic and Protestant countries alike. Thus it can be argued that the northern Netherlands permitted much greater freedom of the press than did other parts of contemporary Europe. However, I suspect that there may also be supplementary explanations of an economic kind, involving supplies of such crucial raw materials as paper and the creation of channels for the sure distribution of books. These are possibilities Briels does not explore.

Beyond its value as a demonstration of a thesis, this book is an extremely useful work of reference. In fact, that may prove to be its greatest value. More than ½ the volume is made up of a bio-bibliographical dictionary of the 364 printers, publishers, booksellers, typefounders, typecutters, and others active in the book trade of the northern Netherlands between 1570 and 1630. These entries reflect massive multiarchival research and often incorporate texts of documents never before published. They include full lists of the publications of the printers, complete with library locations and even call numbers for these often rare volumes. They include photographic reproductions of the printers' marks and copies of portraits of the more prominent among them. Interspersed among the entries are genealogical tables of the families which produced a number of men active in the trade. Even on printers as well known and as intensively studied as Christopher Plantin, Briels manages to supply fresh factual information.

In addition to this dictionary, Briels provides 19 additional appendices—the full texts of oaths, letters, petitions, ordinances, and similar documents revealing of the book trade in this period. Most of these documents have never before been published. Some of them take the story beyond the book's terminal date of 1630, into the second half of the seventeenth century.

The whole study is made yet more useful by a number of tables and indexes and a full bibliography. Altogether, this book is a most significant contribution to our knowledge of early modern Dutch printing. It must be consulted by any scholar interested in this important period in the history of the book.

Robert M. Kingdon, *University of Wisconsin—Madison*

Hebrew Subscription Lists: With an Index to 8,767 Jewish Communities in Europe and North Africa. By BERL KAGAN. New York: Library of the Jewish Theological Seminary of America and Ktav Publishing House, 1975. Pp. xx + 384 + xii. $50.00. ISBN 0-87068-282-2.

From about 1755 until 1940, many (but only a small percentage of) Hebrew books were published with the support of advance "subscribers." Since these subscriptions were obtained by authors or their representatives, who often traveled far from their homes, the economic base of these publications was broad; and a wide distribution was assured. The places where the subscribers came from, 8,685 in Europe and fewer than 100 in North Africa, are the substance of the book under review.

It is not apparent from the title why the geographical listing and its appurtenances are given such a central position—305 pages. Each entry is followed by alternative spellings of the name of the place; a title list of the books that contain subscribers from that place; the number (not the names) of subscribers from that place for each title; and a selection of subscribers' names, mainly rabbis, famous men, congregations, and other organizations. All of this is in Hebrew, including an insufficient number of cross-references from alternative spellings of the place names.

The other lists in the volume are called indexes. The first is a list of Hebrew titles of volumes that have subscription lists, estimated by Kagan as 70–75 percent of the theoretical total. Kagan has listed about 900 books, which adds up to a useful but incomplete bibliography; it is in no sense an index, since it refers to no other parts of the book.

The second list contains the names of about 2,100 individual subscribers and some 400 organizational subscribers. Since Kagan tells us (Yiddish introduction, p. xiv) that his corpus of notes contains 350,000 subscribers' names, one feels cheated that he has chosen to mention so few.

The severest criticism to be made is that neither in the name index nor in the place list is there any connection between the subscribers and the books they subscribed to. If, for instance, a person is found in the index, one is referred to a geographical entry where the person's name appears after the complete list of book titles, but without indication of which book and which person are related. Short of searching every book mentioned, it is virtually a blind reference, except for the vague correlation between person and place.

The geographical index is a roman-alphabet index to the main work. It directs one to the spelling of place names in Hebrew characters and reflects the broad distribution of Jews in Europe. It would have been very helpful if the name in roman characters had also been placed next to its equivalent Hebrew in the main section, thus making identification easy in either direction.

Perhaps most disappointing is the introduction (12 pages in Yiddish and an abridged 6 pages in English) Kagan should be the expert—after fifteen years of prodigious work; but no historical or other exciting synthesis emerges, just a few unsupported generalizations. When he cites 7 references to works that have some material on the subject, he omits page references completely and has at least 3 bibliographic errors (the title of Shatzky's work is *Geschikhte fun Yidn in Varsheh,* not *Yidn in Varsheh, Yidishe filologye* was published in Warsaw, not New York; and the correct *Studies in Bibliography and Booklore* reference is vol. 6, not vol. 4). These oversights, a few false references found in internal spot-checking, and 4½ pages of addenda and corrigenda give one pause about overall reliability; but it was a huge project, and perfection is always only a goal.

Useful information can be mined from this storehouse of data. But it is not a comprehensive study, nor is it a sufficient reference tool for subscribers' names and subscription books. It comes closest to being a limited geographical dictionary and might have succeeded as such, if the compiler had focused his energies here more than he did.

Herbert C. Zafren, *Hebrew Union College–Jewish Institute of Religion, Cincinnati*

"Bibliographical Studies in Honor of Rudolf Hirsch." Edited by WILLIAM E. MILLER and THOMAS G. WALDMAN with NATALIE D. TERRELL *Library Chronicle,* vol. 40, no. 1 (Winter 1974). Philadelphia: University of Pennsylvania Library, 1975. Pp. 145. $3.00 (paper.)

The accountability of the research librarian in managing and enhancing his institution has many aspects. Few of us can ever hope to be successful in very many of them. By directing our attention to the most apparent of problems which seem to have the

most tangible answers, we can too easily overlook—whether by ignoring, delegating, or both—some of those aspects which, in spite of their complexity and subjectivity, remain central to the mission of the library. One thinks first of the responsibility for the quality of the collections: the right texts in the best editions among the thousands coming in every year, as well as the occasional treasure which the specialist can meaningfully use in exploring the frontiers of learning. One thinks also of the need to work with the library's researchers on their own terms, highly varied and often difficult but always, of necessity, mutually respectful. If the librarian must often be the adversary in justifying the expediencies of administration, it is appropriate that he should do so with recourse to those arguments which are personally meaningful to the researchers (if not always valid on any logical grounds and rarely in the best interests of scholarship). Finally, if the library is indeed to be a center of learning and research, it ought to follow that the librarian should be personally involved in the processes of learning and research. Today, let us be honest, the librarian's accountability in such matters can be evaluated only with measuring sticks which require vast efforts and yield uncertain results. While we keep trying to devise better instruments of evaluation, it is good to see other evidence which speaks tellingly to our question. Affected in its affection, as it may be, and somewhat bullyish in its intellectual politeness, the *Festschrift* remains one of the best ways of conspicuously acknowledging what we may too easily assume and forget.

Rudolf Hirsch's scholarship in Renaissance books is here honored with such tributes as ought to gratify any research librarian. From outside Philadelphia come contributions by several giants among bibliographers—Josef Benzing from Germany, Curt Bühler from the Morgan Library, Dennis Rhodes from the British Museum; and by historians—Felix Gilbert from the Princeton Center for Advanced Study and G. R. Potter of *Cambridge History* fame. Local contributors include Lloyd Daly on Greek paleography, Edward Peters on inquisition manuals, and Ruth Dean and Samuel Armistead on an early Spanish booklist. These 3 pieces, as well as John Benton's article on French historiography, are all concerned with material now at Pennsylvania, either uncovered in the Lea Library or acquired through Rudolf Hirsch's efforts. Rounding out the major contributions are pieces by three venerable colleagues—Albert Baugh's work on Beves on Hampton, M. A. Schaaber's valuable miscellany which extends Richard Sayce's landmark exploration of continental Renaissance printing house practices, and Charles David's personal recollections of his work with Hirsch—which in turn inevitably raise the question of what Hirsch intends to do now with so much time on his hands.

Pascal defined the humanist as the person who could harmonize in himself opposite virtues and occupy all the space between them. Certainly we can see in Hirsch such a bibliographical humanist—one whose spectrum of library activity ranges from the specialized and antiquarian study of Renaissance book production to the generalized and current practicalities of bibliographical organization, particularly through union catalogs. Viewing the two extremes of this spectrum, we can also see the basic problem confronting bibliography today. The one side calls for more, and more easily accessible, data; the other laments the burgeoning intellectual record of our civilization and, despairing, dreams alternatively of costly projects and of cost-saving suppressive measures. Few librarians who have not known both extremes of this spectrum can properly appreciate the fashionable maxim of one noted contemporary philosopher: "We have met the enemy and he is us." The responsibility of the librarian—his highest form of accountability—requires an awareness of the entire spectrum. Our profession will be far the poorer if it is not continuingly enriched by practitioners like Rudolf Hirsch.

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Kleine Schriften zum antiken Buch- und Bibliothekswesen. By CARL WENDEL Edited by WERNER KRIEG. Cologne: Greven Verlag, 1974. Pp. 240. DM 48. ISBN 3-7743-0657-5.

Carl Wendel enjoyed abundant respect in his lifetime; and, a quarter of a century after his death in 1951, the importance of his basic studies in the history of ancient libraries continues to be recognized. The present collection commemorates the centennial of his birth, an honor enjoyed only by scholars with an enduring reputation.

Wendel is perhaps best known for his basic work on the history of Greek and Roman libraries, "Das griechisch-römische Altertum," in the *Handbuch der Bibliothekswissenschaft* (3 vols.; Leipzig: Otto Harrassowitz Verlag, 1931–40), 3:1–63. It was brought up to date in the next edition of the *Handbuch* by Willi Göber, but the core of the work is Wendel's. The original article superseded Karl Dziatzko's work on the same subject published at the turn of the century in Pauly-Wissowa. Wendel's other important encyclopedic article, the one on "Bibliothek" in the *Reallexikon für Antike und Christentum* (Stuttgart: Anton Hiersemann, 1950–; 2:233–74), is reprinted here. Essentially, it covers in broad outline the material in the *Handbuch,* plus a good deal more for the periods before and after the chronological scope of the *Handbuch* article.

There are 13 articles in this collection, all of them the most important contributions of Wendel, with the exception of the *Handbuch* article and the very important monograph on *Die griechisch-römische Buchbeschreibung verglichen mit der des vorderen Orients* (Halle, Saale: Max Niemeyer, 1949). Especially important is Wendel's concern with the architecture and physical accommodations for written materials in the ancient library. Three of the articles ("Der antike Bücherschrank," "Armarium legum," and "Der Thoraschrein im Altertum") deal with devices for housing books, and each is accompanied by several plates. The study of "Die bauliche Entwicklung der antiken Bibliotheken" first appeared in the *Zentralblatt für Bibliothekswesen* in 1949, and it traces the architectural form of both public and private libraries from the Hellenistic period to fourth-century Rome and its Christian libraries.

Wendel brings to bear the full weight of his magisterial classical scholarship in the study of the ancient library. His examination of the evidence for a library on Rhodes (from the *Zentralblatt* for 1929) reveals him as a competent student of Greek epigraphy. His careful analysis of the library of Celsus in Ephesus, perhaps the most ancient library building still recognizable as such, and of physical arrangements in other library sites shows a thorough acquaintance with the literature of archaeology. The essay on "Der Bibel-Auftrag Kaiser Konstantins" (originally in the *Zentralblatt* for 1939) is based on a solid competence in paleography and textual criticism. Only too often, historians of libraries have restricted themselves to information available from annual reports, files of head librarians' correspondence, and similar sources; but Wendel's work is an outstanding example of how library history, more than that of any traditional discipline, postulates a broad general background in the history of learning as well as competence in the basic tools of scholarship.

Another important aspect of Wendel's scholarship is his effort to span the history of the ancient library from its beginnings to its last vestiges. The essay on the origins of the first imperial library in Constantinople in the fourth and fifth centuries and its destruction by fire in 475 was first printed in the *Zentralblatt* in 1942; here we have a study of one the first efforts in Europe to found a national library under the aegis of a ruler. The last essay, on Maximus Planudes as a bibliophile, from the *Zentralblatt* for 1941, takes us to the core of Byzantine notions about libraries in the late thirteenth and early fourteenth centuries. The books held by Planudes for himself and for his school are among the best evidence of Byzantine cultural interests.

The definitive history of the ancient library is yet to be written, for Wendel's *Handbuch* essay does not cover all the details in an area where every scrap of source material is important. When it is written, the details brought to light by Wendel will

be a major source; and it is fortunate that so many of them are available in this one volume.

Lawrence S. Thompson, *University of Kentucky*

Australian Libraries. By JOHN BALNAVES and PETER BISKUP 2d ed., completely revised and rewritten. Comparative Library Studies. Hamden, Conn.: Linnet Books; London: Clive Bingley, 1975. Pp. 191. $11.50. ISBN 0-208-01361-X.

The series title *Comparative Library Studies* might well lead to anticipation of a work which presents Australian libraries in relation to those in certain other countries, taking into account the respective social, political, and economic environments which are entwined with and illuminate differences in library provision. But by now we know better, and we expect and receive in *Australian Libraries* an account in line with much writing produced under the banner of "comparative librarianship," the kind that describes a scene other than the writer's or publisher's or intended reader's own. Indeed, another book in the same series, S. Simsova and M. Mackee's *Handbook of Comparative Librarianship,* published in London in 1970, categorized the first edition (by John Balnaves) as "a comprehensive area study" (p. 29), and, at an elementary level, this is what the work is. The authors describe it more modestly in the preface as "a vignette of where Australian libraries stood in mid 1974 and how they got there." Although there are quite a number of brief references to Britain and the United States by way of comparison, and a rare aside on Canada and New Zealand, the authors' description is apt.

The book gathers together and gives shape to information for the most part available in other publications, both primary and secondary. Now and then the text is a paraphrase of part of an encyclopedia article or a government report. It is factual rather than interpretative, indicative rather than evaluative. A valiant opening chapter gives background information about the country—its government, population, economy, and the pattern of education. Others deal with libraries by type: national, state, public, special, and so on. The concluding chapters are on pervasive topics: library associations, education for librarianship, cooperation. Recent events and developments are noted, and the authors' geographical situation in the national capital, Canberra, is reflected in their knowledge of activities in the Australian Capital Territory and of those linked with the commonwealth government by funding or otherwise.

But, as the authors indicate, Australia is a big country. This makes it difficult for only two to catch the nuances of events throughout the continent, but it should not make it difficult to use printed sources accurately. There is the student's and layman's common error of calling the Public Record Office in London the Public Records Office (p. 165), and Victoria's Public Record Office is similarly misnamed (p. 126). We read of what is now the State Library of New South Wales, "The acquisition by the library in 1885 of a first folio Shakespeare exemplifies its early emphasis on development of research collections" (pp. 57–58). The reference is to a gift. It is more disturbing to be told that, "in New South Wales and Victoria, local government records are not included within the ambit of official records, as defined by legislation" (p. 129). The New South Wales *Archives Act, 1960* provides that the governor may, by proclamation, order that a local authority "shall be a public office for the purposes of this Act." Victoria's *Public Records Act, 1973* includes "public office" as a crucial term, and its definition explicitly embraces local government authorities. Such a wide-ranging work needs to be read in manuscript by a number of authorities and, in the absence of scholarly secondary sources, recourse to primary materials becomes essential at all times. This book will disseminate errors as well as light.

There are the inevitable problems of organization of content. The method followed here, which includes the state-by-state accounts the Australian situation calls for usually, has been accompanied, it appears, by a wish not to omit information at any place

which could be considered appropriate. This has led to needless repetition of small points, so that one often reads with an echoing, if not cluttered, mind. Provision for a more productive reinforcement has been made by listing "further reading" at the end of each chapter. The absence of page heads giving chapter titles is an irritating hindrance to easy consultation, as is the wide use of lowercase initial letters, though this may be the publisher's house style. One cannot tell whether the authors are referring to parts of corporate bodies by formal name or using terms in a casual or general way, unless one already has prior knowledge of the names—for example, "Professor Fenwick of the University of Chicago graduate library school" (p. 90) and "the royal society" (p. 121).

John Balnaves and Peter Biskup are colleagues in the field of education for librarianship at the Canberra College of Advanced Education, where Balnaves heads the program. Both have many years of experience in library work in Australia, and neither is Australian-born: an ideal conjunction, may it be said, for the series for which this book was written? They have thoroughly updated the 1966 first edition and produced a helpful assemblage of information, a shrub in a virtual desert. They approached achievement of their unpretentious aim. May *Australian Libraries* stimulate the production of specialized works, deep-rooted trees, so that the third edition will be as accurate as this one is timely.

Wilma Radford, *Sydney, Australia*

Quiet World: A Librarian's Crusade for Destiny. The Professional Autobiography of Louis Shores. Hamden, Conn.: Linnet Books, 1975. Pp. 309. $15.00. ISBN 0-208-01477-2.

Why, after all these years of "evangelism" and "overenthusiasm," has Louis Shores's idea of reference as "the promotion of free inquiry" not become the foundation of library philosophy? In this concept of reference lies, of course, his best-known "crusade," the library-college, which encompasses two of his other crusades—encyclopedism and audiovisualism. Also described in this autobiography are his crusades to integrate the races—in librarianship as well as in society at large—and to bring the study of library history into a prominent place in the profession. His successes in these various endeavors are itemized in "Crusades," the third chapter of the book.

In the first chapter, "Life," Shores describes, with some candor, his childhood and youth related to libraries and education. He could read before he went to school and had even been asked by the children's librarian to tell stories at the regular library story hour. The incident in which he discovered the use of reference tools in learning is told again—the same incident was used as an example in his book *Instructional Materials* (New York: Ronald Press, 1960), but the student in that example was named Paul. The chapter ends with his graduation from Columbia Library School in 1928, his taking of the position of head librarian at Fisk University (a "Negro college"), and his marriage. As part of a professional autobiography, this more personal chapter is appropriate, for it builds a foundation for his life's work.

The second chapter, "Odysseys," recounts his travels abroad, including his time in the armed forces, his Fulbright year studying "comparative reference" in Great Britain, and his various journeys in the employ of Colliers Encyclopedia as editor-in-chief. Somehow there is too much about food and friends and not enough about his work to make this a satisfying chapter for a stranger to read. I found it more like an annotated itinerary and heavy going. In the third and fourth chapters, Shores's philosophy of librarianship and his many avenues for developing that philosophy in practice are summarized. Like the "Crusades" chapter, the final part of the book, "Library and Society," attempts to pull together his ideas on different kinds of libraries and the need for unity among all librarians.

As well as being dean of two library schools, first at Peabody (before the Second World War) and then at Florida State (1946–71), Shores served on many ALA com-

mittees. He describes, in the section concerning his years on the Intellectual Freedom Committee, how his attitude to freedom changed from freedom for openness to any kind of writing to freedom for quality of literature, no matter which ideology was being expressed or human behavior described. His final position seems to have been that it is "intellectual responsibility" for which librarians must stand, transmitting "the highest and best feelings to which men have risen" (p. 274).

But why is it that the profession as a whole is not imbued with the spirit of his "crusade for destiny"—for that professional destiny which, he believed, was "to show people how to reform society more expeditiously and less violently than the militants" (p. 244)? "With everyone trying to out shout everyone else," he writes, "what with marches, demonstrations, theatricals, and other exhibitionisms, the time is about here when quiet will be listened to above the din of spectaculars. I submit that Library Quiet is about to have its day. Signs point to librarianship as the profession of destiny" (p. 278).

There are, I think, two reasons. One is the style in which Shores couches his message. Although he has practiced what he preached, there is a naiveté about the man which creates doubt in the listener's mind. To come from the excellence of *Basic Reference Sources* (Chicago: American Library Association, 1954) to *Looking Forward to 1999* (Tallahassee, Fla.: South Pass Press, 1972) is a distinct shock. The latter book is inelegantly written and produced. To read that work before any other Shores title would mean, in all likelihood, that no other Shores titles would be read. The present book has touches of what appears to be editorial carelessness in it. But the main barriers to careful listening are the tendency to oversell, as, for example, in this statement: "The high destiny of librarianship is to help develop the mind and spirit of mankind" (p. 280); and the edginess one gets when confronted with "mystic feelings." One way to achieve the high destiny of librarianship, he tells us, is to introduce humans to the generic book as early as possible. "Pre-school as far back as the cradle, or even prenatal, if there is really something, as I mystically believe, to surrounding the expectant mother with good books, and good minds, and noble spirits" (p. 280). And this statement on his basic philosophy—"Perhaps my first sense of reverence for the public library stems from this supernatural sensation, from this element in my whole mystic feeling about library quiet and its strange destiny for me and for mankind" (p. 240)—if presented in less evangelistic vocabulary, would be acceptable to most librarians, who believe that the library is a force for the betterment of mankind.

The other reason Shores's message has not been heard is that librarians have not seen the need for "reviving colonial town meetings in our thousands of American libraries of all types" (p. 166). That is, until now. The movement to neighborhood information centers is exactly what Shores sees as the "high destiny" of the profession—bringing people together to help them teach themselves the needed facts and procedures to argue from a documented position, instead of marching in protest without solutions.

The neighborhood information center is developing not because of Shores's philosophical pronouncements but because the need is felt. This is to take nothing away from Shores's insight or his vision. The library profession is wont to act on impact, rather than on the careful analysis and planning necessary to engineer change. Shores's autobiography, with all its faults (probably a reflection of the man himself and therefore an accurate measure of his personality), cannot be ignored. Library school students should read it sympathetically and carefully for the philosophy it contains. Librarians in the field should read it to get perspective on their times and to meet a librarian with more commitment, more drive, and a broader vision than any twenty of their other colleagues.

S. D. Neill, *University of Western Ontario*

Sources for the History of Science, 1660–1914. By DAVID KNIGHT The Sources of History: Studies in the Uses of Historical Evidence. Ithaca, N.Y.: Cornell University Press, 1975. Pp. 223. $11.00. ISBN 0-8014-0941-1.

This is a good book misleadingly titled. It is not a *vade mecum* like G. Sarton's *Guide to the History of Science* (Waltham, Mass.: Chronica Botanica Co., 1952) or F. Russo's *Éléments de bibliographie de l'histoire des sciences et des techniques* (Paris: Hermann, 1954; 2d ed., 1969), and it is useless as a finding aid to such modern specialized bibliographies as S. Brush's *Resources for the History of Physics* (2 vols.; Hanover, N.H.: University Press of New England, 1972) and the review articles in the first volumes of *History of Science: An Annual Review of Literature, Research and Teaching* (Cambridge: W. Heffer & Sons, 1962–). Dr. Knight's book is, rather, an introduction to the goals, methods, problems, and materials of the history of science, illustrated by what he takes to be representative works. The reason for the qualification is that his sources are all in English, and his examples come primarily from British science; fortunately, his main purpose—initiation and orientation—is not much harmed by this narrowness, which only occasionally betrays him into imposing the British pattern on the history of science as a whole. An example is his belief that the professionalization of science and the introduction of science into university curricula are nineteenth-century innovations.

Knight holds (as do most of his colleagues) that the history of science is a branch of general history, with the same methods and standards; it is not the province solely of the expert but a legitimate branch of study for all historians. He distinguishes between "pure" and "applied" history of science, the latter being the exercise of philosophers and sociologists, to whose overtures he recommends a "coy" response. He stresses the need for interpretation and rightly considers the *General History of Science*, edited by R. Taton (4 vols.; London: Thames & Hudson, 1964–66), a fine example of what to avoid. More controversial is his insistence that one's first obligation is to describe the normal practice of science and that, to avoid the narrowness that has plagued the field, the historian of science should aim at a grasp of the development of several sciences during a "relatively brief" period, rather than at a mastery of the history of a single science over several centuries. I concur in the first point, for only after understanding the commonplace (as expressed in texts, popularizations, encyclopedias, contemporary reviews, and monographs) can the historian identify what in his sources was new or retrograde in its time. As for the second point, it overlooks a common experience in historical research: the student who pursues even the narrowest subject fully and resourcefully will ultimately be brought to confront general historical themes. One may point to the recent investigations of social and institutional history on the part of several historians earlier concerned with the conceptual development of physics (see R. McCormmach, "Editor's Foreword," in *Historical Studies in the Physical Sciences* 3 [1971]: ix–xxiv).

On the operational level, Knight's counsel is always to the point: read widely in the secondary literature before turning to primary sources, especially manuscripts; do not preoccupy yourself with precursors or priority; do not believe everything you read in manuscripts, especially letters; do not take the history of physics as the norm; beware of accepting the date of publication or of submission or of reading of a paper as its date of composition; always consider the audience for which a given artifact was intended; read the work of unimportant as well as important scientists; consult examination papers, account books, travel journals, diaries, popular writings, institutional histories, and regional histories; use original editions and examine surviving apparatus, whenever possible. None of this constitutes a new method. It is a fine old one; and Knight deserves thanks for illustrating it in a manner useful to the tyro in the history of science.

J. L. Heilbron, *University of California, Berkeley*

Book Selection. Principles and Procedures. By RINALDO LUNATI Translated by LUCIANA MARULLI With a foreword by GUY A. MARCO Metuchen, N.J.: Scarecrow Press, 1975. Pp. vii+167. $7.00. ISBN 0-8108-0846-3.

This is a translation of chapters 2, 3 and 4 of Rinaldo Lunati's *Scelta del libro per la formazione e lo sviluppo delle biblioteche* (Florence: Leo S. Olschki, 1972). In his review of the original edition (*Library Quarterly* 43 [July 1973]: 267–68), Guy A. Marco wrote, "The real achievement of the book . . . is a 160-page review of the literature on selection theory. Naudé leads the procession of such venerables as Peignot, Poole, Wellard, McColvin, Drury, Bostwick, Bonny, Ranganathan, Haines and Danton. Their ideas are thoroughly presented and incisively criticized, this survey (perhaps the best in any language) will give a solid retrospective push to anyone ready for some hard thinking about selection." It is this section of the book which has been translated. The chapters are "From Bibliographical Selection to Selection Based on the Principles of Library Science," pp. 1–14, "Some Important Contributions to the Literature of Book Selection," pp. 15–123; and "Certain Empirical Procedures Used for Book Selection," pp. 124–67. (G.B.N.)

Books for Children with Language Difficulties. A List of Books to Stimulate Children with Retarded Language and a Mental Age of Two to Five Years. 2d ed. Kensington: School of Librarianship, University of New South Wales, 1975. Pp. 53. (Paper.) ISBN 0-960644-10-1.

An annotated bibliography providing guidance for the selection of books for a specific audience, children with retarded language and a mental age of 2½–5. Each citation gives, in addition to imprint information, the subject, descriptions of arrangement and quantity of print on the pages, descriptions of illustrations and format, and an appraisal that includes the strengths and weaknesses of the book and the ways in which it can introduce or reinforce concepts. The introduction provides an excellent discussion of the criteria used in evaluating titles and of the ways in which the books selected can help young children who have communication problems. (Z.S.)

Books for College Libraries: A Core Collection of 40,000 Titles. A project of the ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES 2d ed. Chicago: American Library Association, 1975. 6 vols. $65.00 (paper). ISBN 0-8389-0178-6.

This new work (called *BCL II* in its preface) uses the 1967 edition of *Books for College Libraries* as its "major checklist," but *BCL II* is really a separate bibliographical project. The books listed are fewer in number than those in the 1967 edition. The books listed are to constitute "the bare minimum of titles needed to support an average college instructional program of good quality." The number of titles included is approximately ⅘ of the minimum required by 1959 ALA standards. "Libraries are to choose the fifth portion [themselves] to strengthen those subjects emphasized in the curriculum of their particular institution." Entries for individual titles have been

expanded, using MARC records to give cataloging and classification information. The 6 volumes are divided by subject and Library of Congress classification as follows: volume 1, humanities (A, B–BD, BH–BX, M–N); volume 2, language and literature (P–PZ); volume 3, history (C–F); volume 4, social sciences (G–L); volume 5, psychology, science, technology, and bibliography (BF, Q–Z). Volume 6 is an index by author, title, and subject. The subject portion is a "limited index to Library of Congress Classification, not a guide to every book on each topic. Terms are selected from Library of Congress Subject Headings." (P.K.C.)

Essays for Ralph Shaw. Edited by NORMAN D. STEVENS. Metuchen, N.J.: Scarecrow Press, 1975. Pp. vi + 212. $8.00. ISBN 0-8108-0815-3.

Nearly all the contributors to this memorial volume in honor of Ralph Shaw were doctoral students of his at the Graduate School of Library Service of Rutgers University, where Shaw served from 1954 to 1964 as professor and, from 1959 to 1961, as dean. The essays are "A Tribute to Ralph Shaw," by Lowell Martin; "Shaw and the Machine," by Theodore C. Hines; "Adverse Drug Reaction Information in the Literature," by Robert F. Clarke; "Libraries and Innovations," by Richard M. Dougherty; "Scholars in Residence," by Ira W. Harris; "The Real World of Continuing Education for Library Personnel," by Peter Hiatt; "ESEA Title II Contributions to State Department of Education Leadership of School Media Programs," by Milbrey L. Jones; "Compound Growth in Libraries," by Fred Heinritz; "Turnover Rate: Basic Library Statistics and Some Applications," by Theodore S. Huang; "Quali-Quanti as Output Performance Criteria," by Choong H. Kim; "Inventory," by Henry Voos; "Theories of Information," by Susan Artandi; "Cooperation Unlimited," by Leonard Grundt; "Public and Technical Library Services: A Revised Relationship," by Doralyn J. Hickey; and "Beyond the Promises of Automation," by Norman D. Stevens. Four pages of Ralph Shaw's aphorisms complete the volume. It is fittingly issued by Scarecrow Press, the publishing house Shaw founded. (G.B.N.)

IFLA Journal. Official Quarterly Journal of the International Federation of Library Associations, vol. 1, no. 1–, 1975–. Pullach bei Munchen: Verlag Dokumentation. Annual subscription: DM 48 (free to IFLA members).

This new journal replaces *IFLA News,* and its appearance also marks the end of "IFLA Communications," which had been published in *Libri.* An article section is managed by an editorial committee; a news section is "prepared by and published under the responsibility of the IFLA Secretariat." The news section is in English; but articles will be accepted in English, French, or German, with summaries in the languages not used. The *IFLA Journal* is not intended to be a scholarly journal, and the articles are to be mainly a state-of-the-art kind or surveys of IFLA activities. The first issue has articles by Dorothy Anderson ("IFLA's Programme for UBC: The Background and the Basis"), I. Gombocz and M. J. Schiltman ("The Forty Years of the Committee on the Exchange of Publications"), and J. Wieder ("The Restoration and Conservation of Library and Archive Materials as an International Task"). The news section, which comprises about ⅔ of the issue, has a separate table of contents. Reports of IFLA committees, international groups with which IFLA works jointly, and other organizations such as UNISIST, FID, and ISO are included in this section. (W.B.R.)

Index to Users Studies Compiled by FID STUDY COMMITTEE "INFORMATION FOR INDUSTRY" (FID/II). FID 515. The Hague: International Federation for Documentation, 1974. Pp. 103. (Paper.) ISBN 92-66-00515-0.

This is a computer-produced list of some 200 user studies which, according to the foreword, with one or two exceptions, have appeared in the last ten years (though some, as indicated in the text, have not yet been published). The work does not aspire to completeness but to usefulness and representativeness, though what criteria have been used to determine these qualities are obscure. It was compiled by the FID Study Committee on Information for Industry, which has a membership drawn from twenty-four countries. Abbreviated entries for the studies are grouped under simple, alphabetically arranged subject headings This section is followed by an author index, and the work is completed by a numbered list of "documents" which provides detailed bibliographic citations for the studies and usually, but not always, brief abstracts of them. Unfortunately, no list of abbreviations of journal titles is provided, and references such as "TEKN.UKEOL" may cause some quite proper bewilderment. Why, one wonders, given the explicit criterion of usefulness, was an "internal report by Organizacni Sluzba, Prague, Ministry of Trade, 1969" included? Why is there an entry, in a work issued in 1974, for a study which is "scheduled for publication, Pudoc, Wageningen, Feb. 1970," or an entry for a 1966 unpublished Ph.D. dissertation or a 1968 thesis, the latter without abstract? Above all, why are the languages and countries of origin of the studies indicated so unsystematically? Acording to the foreword, countries of origin are given for all studies except those carried out in the United States. This is generally, but not always, true; and, given the fact that titles and abstracts are in English and sources sometimes cruelly abbreviated, the absence of this information can be extremely annoying. One is left wondering what the point of this unnecessarily ugly, imperfect, unsystematic publication is. (W.B R.)

Library, Documentation and Archives Serials Compiled by GRAŻYNA JANZING. Edited by K. R. BROWN 4th ed. FID 532. The Hague· International Federation for Documentation, 1975. Pp. v + 203. Fl 40 (paper). ISBN 92-66-00532-0

The fourth edition of this important bibliography lists 950 in-print serials, information about which was obtained from questionnaires sent out to editors and publishers during 1974 The work was assisted by a grant from UNESCO, and the International Federation of Library Associations and the International Council of Archives helped identify titles. In addition to serials in librarianship, information science, documentation, and archives, serials in automation, reprography, and micrographics have been included where of direct relevance to the bibliography's major fields. Each entry gives title and acronym (transliterated if in a nonroman alphabet), subtitle, translated title in the case of transliterated titles, former titles and related dates, and sponsoring body or publisher and address. The entry also includes subscription price, an indication of the nature of the contents, languages dealt with, and the titles of general indexing and abstracting services which include the serial involved. The work is divided into 6 sections: titles issued by international organizations; country listings of titles; abstracting, indexing, and current awareness services; ceased titles; a selective list of titles according to subject; and an alphabetical index of titles.

The number of serials included has increased to nearly 1,000 from the 517 listed in the third edition of 1968. International or multinational organizations, then responsible for 16 titles, now count for 77. There were 46 titles of abstracting and indexing services listed in the previous edition, compared with 58 in this. The comprehensive, up-to-date conspectus of serial publishing in the fields of librarianship, information

science, documentation, and archives provided by this work is both extraordinary and disturbing. Have these fields of professional and scholarly endeavor progressed as rapidly as the increasing numbers of titles would seem to indicate; or have they fallen prey to a "paper explosion," the causes of which are extrinsic and likely to be capricious in their operation? (W.B.R.)

Managing the Library Fire Risk. By JOHN MORRIS Edited and with a foreword by IRVIN D. NICHOLAS Berkeley: Office of Insurance and Risk Management, University of California, 1975. Pp. 101. $6.25 (paper).

According to the foreword, the book "is not intended to be read as an engineering manual, but only as a description of the library fire risk and some of the known methods of controlling the risk. It should be helpful to library managers and staff members who need to have a working knowledge of fire protection systems and related fire risk problems for emergency planning and for information for donors on protection of collections." The text discusses the risk of fire in the library, the problem of arson, the destruction by fire of the Charles Klein Law Library at Temple University in Philadelphia in 1972 (with a reprint of the analysis of that fire from the National Fire Protection Association *Fire Journal*), alternatives for protecting the library, disaster preparedness and fire prevention, the salvage of wet books, and automatic fire-protection systems. To explain representative devices and systems currently available, proprietary literature describing fire systems is incorporated into the publication. The appendices reprint 3 articles: "Fire Protection at the National Archives Building," "Space-Age Drying Method Salvages Library Books," and "Military Personnel Records Center Fire." There are numerous illustrations and a 3-page bibliography. (G.B.N.)

Matthieu Maty and the "Journal Britannique," 1750–1755: A French View of English Literature in the Middle of the Eighteenth Century. By UTA JANSSENS Amsterdam: Holland University Press, 1975. Pp. x+215. Fl 35 (paper). ISBN 90-302-1103-2.

Matthieu Maty (1718–76), second principal librarian of the British Museum, was a physician, author, member of several European academies, and secretary to the Royal Society. A French Huguenot, he was born and bred in Holland and emigrated to London in 1740. He was appointed underlibrarian of the British Museum in 1756 and principal librarian four years before his death. Maty is perhaps best remembered, however, as the founder and editor of the *Journal Britannique,* a periodical which from 1750 to 1755 provided continental readers with accounts of the principal books published in England and kept its audience up to date on the English literary scene. The last of four French Huguenot periodicals devoted exclusively to the productions of the English press which appeared within four decades and in short succession, the *Journal Britannique* was written in England in French; printed in Holland; and distributed by booksellers in Holland, Belgium, Germany, France, Switzerland, Italy, England, Scotland, and Ireland.

This book provides a detailed account of both Maty and the *Journal Britannique.* Part 1 (pp. 7–42), a biographical portrait of Maty's entire career, should be of interest to library historians. Part 2 (pp. 43–123) is a study of the *Journal Britannique* itself. It is set in the context of eighteenth-century literary journalism and criticism; and attention is devoted to Maty's editorial policy, the booksellers who distributed the *Journal,* Maty's relations with his printer (Henri Scheurleer), the *Journal*'s circulation and reputation, its physical appearance, and its would-be successors. The greatest amount of space, however, is devoted to an analysis of the *Journal*'s contents; its contributors (Maty

provided about ⅔ of the written contents himself); and its coverage and views of contemporary English poetry, drama, and prose. The appendices (pp. 127–70) consist of an analytical index arranged by subject of the articles and books reviewed in the *Journal* and a list of contributors. Originally a thesis, this book is well written and attractively printed, with 4 plates. (G.B.N.)

Selected Readings on Information for Industry. By the FID STUDY COMMITTEE "INFORMATION FOR INDUSTRY" (FID/II). FID 518. Copenhagen: FID/II, 1974. Pp. 60. Fl 40 (paper). Order from International Federation for Documentation, The Hague.

This small volume "presents 68 references to literature illustrating the problems of putting information across to industry and establishing information services within industrial firms" (p. 7). It is a "spin-off from a project which FID/II has been working on for some years" of finding "means of motivating management for planned communication with external sources of knowledge and for planned flow of information within the firm" (p. 3). Arrangement is by form of material: papers and articles appearing in periodicals, individual papers and proceedings, books and reports, and handbooks. There are indexes by author and subject. Each entry is numbered and its title printed as the first element in the entry, in boldface caps as a kind of subject heading; a ½-page abstract accompanies each entry. References were carefully restricted "to items stressing the effect of successful communication leading to practical results" (p. 3). References to specific library or documentation services or problems as such are excluded. Only English-language literature is included; however, the compilers intend to issue future editions, which may also include literature in other languages. (W.B.R.)

BOOKS RECEIVED

American Odyssey: A Bookselling Travelogue. By LEN FULTON with ELLEN FERBER. American Dust Series, no. 1. Paradise, Calif.: Dustbooks, 1975. Pp. 187. $7.95 (cloth), ISBN 0-913218-47-2; $4.50 (paper), ISBN 0-913218-46-4.

Analysis of the Midwest Medical Union Catalog: Progress Report #1. By PAUL E. OLSON and CHESTER J. PLETZKE. Chicago: Midwest Health Science Library Network, John Crerar Library, 1974. Pp. 32. (Paper.)

Analysis of the Midwest Medical Union Catalog: Final Report. By PAUL E. OLSON and CHESTER J. PLETZKE. Chicago: Midwest Health Science Library Network, John Crerar Library, 1975. Pp. viii + 80. (Paper.)

Anglo-American Cataloging Rules: North American Text. Chap. 12: *Audiovisual Media and Special Instructional Materials.* Rev. Chicago: American Library Association, 1975. Pp. viii + 56. $1.50 (paper). ISBN 0-8389-3174-X.

Annual Report of the Librarian of Congress for the Fiscal Year Ending June 30, 1974. Washington, D.C.: Library of Congress, 1975. Pp. xvi + 181. $6.40. For sale by the Superintendent of Documents.

ARL Annual Salary Survey, 1974–1975. Compiled by SUZANNE FRANKIE. Washington, D.C.: Association of Research Libraries, 1975. Pp. 25. (Paper.)

The Art of the Librarian. Edited by A. E. JEFFREYS. Newcastle upon Tyne: Oriel Press, 1973. Pp. x + 190. $9.50. ISBN 0-85362-105-5. Order from Routledge & Kegan Paul, Boston.

The Battle of the Books: Kanawha County. By FRANKLIN PARKER. Fastback, no. 63. Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1975. Pp. 34. $0.50 (paper). ISBN 0-87367-063-9. Publisher's address: Box 789, Bloomington, Indiana 47401.

Bernstein's Reverse Dictionary. By THEODORE M. BERNSTEIN with the collaboration of JANE WAGNER. New York: Quadrangle/New York Times Book Co., 1975. Pp. x + 277. $10.00. ISBN 0-8129-0566-0.

Bibliography on Oral History. Compiled by MANFRED WASERMAN. Rev. New York: Oral History Association, 1975. Pp. vii + 53. $3.00 (paper). Available from Dr. R. E. Marcello, Exec. Secretary, Oral History Association, P.O. Box 13734, North Texas Station, Denton, Texas 76203.

Children's Book Review Index. Vol. 1, no. 1–, January–April 1975–. Edited by GARY C. TARBERT. Published three times a year. Detroit: Gale Research Co. $18.00 per year. Annual cumulations: $18.00.

Computer Assisted Indexing in the Central State University Library. By GERALD L. GARDINER. University of Illinois Graduate School of Library Science Occasional Papers, no. 120. Champaign: Publications Office, University of Illinois, Graduate School of Library Science, 1975. Pp. 24. $2.00 (paper).

Core Media Collection for Secondary Schools. By LUCY GREGOR BROWN. New York: R. R. Bowker, 1975. Pp. xiii + 221. $16.95. ISBN 0-8352-0643-2.

Dania Polyglotta: Literature on Denmark in Languages Other Than Danish and Books of Danish Interest Published Abroad. An Annual Bibliography. Compiled by the DANISH DEPARTMENT, ROYAL LIBRARY N.S. 6 (1974). Copenhagen: Royal Library, 1975. Pp. 152 (Paper.) ISBN 87-7023-160-5.

Directory of Associations in Canada, 1975. Prepared under the direction of BRIAN LAND. 2d ed. Toronto and Buffalo: University of Toronto Press, 1975. Pp. xiv + 550. $37.50. ISBN 0-8020-4519-7.

Directory of Special Libraries in Alaska. Edited by ALAN EDWARD SCHORR New York: Special Libraries Association, 1975. Pp. iv + 67. $5.00 (paper). ISBN 0-87111-239-6.

Editing by Design. Word-and-Picture Communication for Editors and Designers. By JAN V. WHITE. New York: R. R. Bowker, 1974. Pp. xiv + 240. $17.50. ISBN 0-8352-0692-0.

Emerging Sources of Student Influence. By SAMUEL E. KELLAMS ERIC/Higher Education Research Report, no. 5 (1975). Washington, D.C.: American Association for Higher Education, 1975. Pp. 55. $3.00 (paper).

"Federal Aid to Libraries: Its History, Impact, Future." Edited by GENEVIEVE M. CASEY *Library Trends,* vol. 24, no. 1 (July 1975). Urbana: University of Illinois Press, 1975. Pp. 153. $4.00 (paper).

Federal Laws: Nondiscrimination and Faculty Employment. By CAROL HERRNSTADT SHULMAN. ERIC/Higher Education Research Report, no. 4 (1975). Washington, D.C.: American Association for Higher Education, 1975. Pp. 53. $3.00 (paper).

FID Publications: An 80 Year Bibliography, 1885–1975. FID 531. The Hague: International Federation for Documentation, 1975. Pp. 94. Fl 20 (paper). ISBN 92-66-00531-2.

The Geography and Map Division: A Guide to Its Collections and Services. Rev. ed. Washington, D.C.: Library of Congress, 1975. Pp. vi + 42. $1.15 (paper). ISBN 0-8444-0150-1. Order from Superintendent of Documents.

Guidelines for the Coded Bibliographic Strip for Serial Publications. Paris: UNISIST/United Nations Educational, Scientific and Cultural Organization; International Council of Scientific Unions Abstracting Board; and International Serials Data System, 1975. Pp. 14. Order from ICSU-AB, 17 rue Mirabeau, 75016 Paris.

Guidelines for the Evaluation of Training Courses, Workshops and Seminars in Scientific and Technical Information and Documentation. By F. W. LANCASTER SC.75/WS/44. Paris: UNISIST/United Nations Educational, Scientific and Cultural Organization, 1975. Pp. 63 + 36 pp. of appendices. (Paper.)

Gutenberg-Jahrbuch 1975 Edited by HANS WIDMANN Mainz: Verlag der Gutenberg-Gesellschaft, 1975. Pp. 386.

How to Find Out about the Social Sciences. By GILLIAN A. BURRINGTON Library and Technical Information. Oxford and New York: Pergamon Press, 1975. Pp. vii + 144. $8.00. ISBN 0-08-018289-5.

Information on Music: A Handbook of Reference Sources in European Languages. Vol. 1: *Basic and Universal Sources.* By GUY A. MARCO, with the assistance of SHARON PAUGH FERRIS Littleton, Colo.: Libraries Unlimited, 1975. Pp. xvi + 164. $11.50 (U.S. and Canada); $13.50 (elsewhere). ISBN 0-87287-096-0.

INIS: Descriptive Cataloguing Rules By G. DEL BIGIO, C. M. GOTTSCHALK, and E. RUCKENBAUER INIS Reference Series. IAEA-INIS-1 (Rev.2). Vienna: International Atomic Energy Agency, 1972. Pp. 96. $1.10 (paper).

INIS: Magnetic Tape Specifications and Record Format. INIS Reference Series. IAEA-INIS-9 (Rev.2). Vienna: International Atomic Energy Agency, 1974. Pp. 32. $1.00 (paper).

Katalog der Abendländischen Handschriften der Österreichischen Nationalbibliothek, "Series Nova" (Neuerwerbungen) Teil 4: *Cod. Ser. N. 4001-4800.* By OTTO MAZAL Museion; Veröffentlichungen der Österreichischen Nationalbibliothek, n.F. 4. Reihe: Veröffentlichungen der Handschriftensammlung, Bd. 2. Wien: In Kommission bei Verlag Brüder Hollinek, 1975. Pp. xiii + 572. ISBN 3-85119-102-1.

Libraries in Higher Education. The User Approach to Service. Edited by JOHN COWLEY. Hamden, Conn.: Linnet Books; London: Clive Bingley, 1975. Pp. 163. $11.50. ISBN 0-208-01371-7.

"Library Cooperation." Edited by PEARCE S. GROVE *Library Trends,* vol. 24, no. 2 (October 1975). Urbana: University of Illinois Press, 1975. Pp. 155-423. $4.00 (paper).

Library Life—American Style. A Journalist's Field Report. By ARTHUR PLOTNIK Metuchen, N.J.: Scarecrow Press, 1975. Pp. v + 220. $8.00. ISBN 0-8108-0852-8.

Library Management Cases. By MILDRED HAWKSWORTH LOWELL Metuchen, N.J.: Scarecrow Press, 1975. Pp. x + 260. $8.50. ISBN 0-8108-0845-5.

Library Materials in Service to the Adult New Reader. By HELEN HUGUENOR LYMAN Chicago: American Library Association, 1973. Pp. xxxi + 611. $10.00 (paper). ISBN 0-8389-0147-6.

Library Power: A New Philosophy of Librarianship By JAMES THOMPSON Hamden, Conn.: Linnet Books; London: Clive Bingley, 1974. Pp. 111. $6.50. ISBN 0-208-01379-2.

LIST. Library and Information Services Today: An International Registry of Research and Innovation Edited by PAUL WASSERMAN, associate editor, JEANNE A. O'CONNELL Vol. 5/1975. Detroit: Gale Research Co., 1975. Pp. xx + 633. $45.00 ISBN 0-8103-0387-6.

Malcolm Cowley: A Checklist of His Writings, 1916–1973. By DIANE U. EISENBERG With an introduction by Malcolm Cowley. Carbondale: Southern Illinois University Press, 1975. Pp. xxxii + 240. $8.95. ISBN 0-8093-0748-0.

"Management of Archives and Manuscript Collections for Librarians." Issue edited by RICHARD H. LYTLE. *Drexel Library Quarterly,* vol. 11, no. 1 (January 1975). Philadelphia: Graduate School of Library Science, Drexel University. Pp. 123. $4.00 (paper).

Maps. A Historical Survey of Their Study and Collecting. By R. A. SKELTON Illustrated ed. The Kenneth Nebenzahl, Jr., Lectures in the History of Cartography at The Newberry Library. Chicago: University of Chicago Press, 1975. Pp. xv + 138. $2.75 (paper). ISBN 0-226-76165-7.

Medical Information Network for Ontario: Determination of Need. London, Ont.: School of Library and Information Science, University of Western Ontario, 1973. Pp. xiv + 382. (Paper.)

The Modern School Library. By HELEN E. SAUNDERS 2d ed., completely rev. by NANCY POLETTE Metuchen, N.J.: Scarecrow Press, 1975. Pp. vi + 237. $7.50. ISBN 0-8108-0864-1.

Multi-Ethnic Media: Selected Bibliographies in Print. Chicago: Office of Library Service to the Disadvantaged, American Library Association, 1975. Pp. 33. $2.00 (paper). ISBN 0-8389-3170-7.

The National Archives and Statistical Research. Edited by MEYER H. FISHBEIN National Archive Conferences, no. 2. Athens: Ohio University Press, 1973. Pp. xiv + 255. $10.00. ISBN 0-8214-0104-1.

National Commission on Libraries and Information Science. Annual Report to the President and the Congress, 1973–1974. Washington, D.C.: Government Printing Office, 1975. Pp. 38. $0.70 (paper). Stock no. 052-003-00083-1.

Het Nederlandse boek in vertaling Bibliografie van vertalingen van Noord- en Zuidnederlandse werken, 1968–1972. Compiled by E. VAN RAAN The Hague: Royal Library, 1975. Pp. 233. (Paper.) ISBN 90-12-00858-1.

Of, By, and For Librarians. Second Series Edited by JOHN DAVID MARSHALL Hamden, Conn.: Shoe String Press, 1974. Pp. x+242. $8.00. ISBN 0-208-01333-4.

Omnibus Copyright Revision: Comparative Analysis of the Issues. Prepared by the CAMBRIDGE RESEARCH INSTITUTE Washington, D.C.: American Society for Information Science, 1973. Pp. xvii+280. $48.00.

Opportunity Programs for the Disadvantaged in Higher Education By EDMUND W. GORDON ERIC/Higher Education Research Report, no. 6 (1975). Washington, D.C.: American Association for Higher Education, 1975. Pp. 28. $3.00 (paper).

Pathfinder: An Operational Guide for the School Librarian. By PATRICIA FREEMAN New York: Harper & Row, 1975. Pp. x+325. $7.95. ISBN 0-06-042184-3.

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CORRESPONDENCE

To the Editor:

My remarks refer to Allan Pratt's "The Analysis of Library Statistics" (*Library Quarterly* 45 [July 1975]: 275–86), wherein he documents the fact that frequency distributions of U.S. academic libraries' monograph holdings, periodical holdings, and operating budgets are (1) nonnormal and (2) better treated if lognormality, rather than normality, is assumed. He states (p. 285) that "Essentially, it is the thesis of this paper that the lognormal distribution, not the normal, is the appropriate one to use in the analysis of library statistics, simply because it fits the data better." In this context it is the academic library that is implied, but at the close of the article it is opined that all types of libraries probably share these characteristics. Further, he clearly implies that the distribution of salaries, among other types of data, may prove to be best treated with a lognormal model.

It can be readily shown that this implication is not universally true. Lognormality is not the only appropriate model for librarians' salary distributions, which can be demonstrated simply by examining figure 2 of the "SLA Salary Survey: 1973" (*Special Libraries* 64 [December 1973]: 596), which depicts the distribution of mean annual salaries in thousands of dollars for data gathered during the years 1959, 1967, 1970, and 1973. The distribution in 1959 promises at least partial support of Dr. Pratt's thesis. The 1967 and 1970 distributions look like slightly skewed, but basically normal, curves. And the 1973 distribution looks rather like a line drawing of rolling hills.

I have worked with salary data, especially data for public library personnel for some time and have observed several characteristics of their distribution. Within large public libraries, salaries tend to be distributed bimodally (peaks at beginning clerical and beginning professional positions) and skewed to the right (representing the director's and associate director's salaries). If attention is confined to the salaries of beginning public librarians, then the distribution is probably best described as normal although the regularly ascending value of mode, median, and mean suggests a small, uneven tug of war between lognormality and normality. If attention is confined to public library directors' salaries, Dr. Pratt's hypothesis may be useful; it is even more likely to prove somewhat fruitful if applied to all the salaries paid to all the public librarians in the United States at any one time.

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A.N.L. MUNBY MEMORIAL FELLOWSHIP FUND

The Syndics of the Cambridge University Library appeal for funds to endow within the Cambridge University Library a Munby Fellowship for research in those branches of bibliographical study to which Munby himself contributed so much. Their proposals are as follows:

The Fellowship will be associated with the Rare Books Department or, when appropriate, the Manuscripts Department of the University Library. The holder of the Fellowship will be free from all departmental and other staff duties and responsibilities.

The object of the Fellowship will be to sponsor bibliographical research (and especially research connected with the history of the booktrade and the formation of libraries) which will also directly or indirectly be of benefit to scholars using the research collections in Cambridge libraries.

Appointments to the Fellowship will be made by the Syndics, who will seek the advice of appropriate bodies in Britain and the United States of America. Appointments will normally be for one or two years with the possibility of extension if circumstances warrant it.

The stipend will be variable depending upon age, experience, etc. Help may be given with travelling expenses for scholars from abroad.

For the establishment of the proposed Fellowship a fund of at least £50,000 or $115,000 is needed. All contributions of whatever magnitude will be welcomed and individually acknowledged. Subscribers will also receive from time to time a report on the progress of the Fund.

The American Friends of Cambridge University have agreed to support the project and invite American subscribers to assist them in funding their grant. Gifts made to the American Friends of Cambridge University may be deducted for U.S. income tax purposes to the extent provided by law. Cheques should be made payable to the American Friends of Cambridge University and sent to 1611 35th Street N.W., Washington, D.C. 20007.